THE NATION'S SCHOOLS

DEVOTED TO THE APPLICATION OF RESEARCH TO THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

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Looking Forward

SOME writers during the past year have advocated realism in professional educational organization and recommended strongly the selfish type of pressure lobbying that is so obvious in current political and economic life. Instead of attempting to analyze the possibilities of the profession, as a natural interest group, working on a higher and more intelligent level, many administrators and professional secretaries today definitely wish to imitate the weaknesses evident in other areas.

There are many reasons why the teaching profession cannot become as effective as other present day lobbies, but three will suffice to raise the issue for discussion. Pressure lobbies in state and nation are now effective because of the use of selfish political power, because of the threat and use of personal blackmail, and because of outright bribery. Can the profession, an executive division of the state, afford to enter the field on these levels?

MUCH of the recent discussion and criticism concerning professional organization results from the feeling that these groups have not been effective during the recent crisis. The critics fail to realize that the depression effects on public education were the result of causes far beyond the scope and power of any single interest group. Criticism of this type should receive scant consideration. It shows a rather broad lack of understanding of the economic fundamentals of our social order.

However, the professional groups have been sick for a long time but for very different reasons. It was not until the depression produced real despair that the dissentients found courage to take action. It is doubtful whether more than one-fifth of the total listed as teachers ever belonged to the National Education Association and the highest total enrolled in all state organizations never rose above 75 per cent. Incidentally, memberships have been steadily declining since 1930.

THE causes, not difficult to find, may be summarized briefly as follows: The method of organization, consciously imitative of corporate administrative technique in which the control rests with a small inside group and the secretariat, is too autocratic to meet the needs of the teaching profession, and accounts for the deflection of the classroom teachers. There is too little real integration between the local, state and national groups. The development of huge and special interest groups, around either a subject matter or a technique interest, has drained much of the interest and power from the state and national organizations. The attempt to overcome lack of instructional interest by use of administrative pressure to secure memberships developed bad feeling cumulatively.

Existing organizations have permitted two codes of ethics to operate, one for teachers and the other for administrators. Teachers have been forced to watch rewards follow unethical conduct on the part of administrators without having the profession take a step against it. They have seen intellectual dishonesty rewarded and faithful service penalized. State professional organizations as a whole have never had the nerve to defend individual members or to cry out against injustice. They have acted more like a timid business-getting chamber of commerce than a professional group.

These types of programs have not raised profes-

sional organizations either in popular estimation or in the minds of the teachers. They have necessitated much pressure to secure members when even a slight amount of reasoning might have convinced the secretariats that the best advertising would be a program of value to the great mass of the teaching profession. Apparently this thought never occurred to them.

THE time is ripe for a change! The teaching profession needs better and more effective organization. Under the current social organization, the profession will be lost and submerged unless we do organize more effectively. We need a strongly integrated organization as cohesive and clannishly loyal as the American Medical Association, but with a wider social program in light of our peculiar relationship as executive agents of the state.

Such changes can be made without destroying the present organization. Modification may be progressively made through a special committee appointed to draw up a new constitution for the National Education Association. Its better integration with state units can also be easily correlated by this simple procedure. The second step is the modification of state and local organization. These changes might also come as a result of constitutional amendments.

HAVING considered method, what type of organization would be most effective? I believe the teaching profession would be most benefited by the rapid formation of a teacher guild, the groundwork for which may be quickly outlined. The guild organization, patterned somewhat upon the craft organization of the middle ages, has prerogatives and responsibilities. We cannot accept one without the other.

The first characteristic of this type of organization is that all sit together and equally as teachers. Teachers, principals and superintendents all join together in their capacity as teachers. The guild spirit is the colleague spirit. There is no higher title or position than that of teacher. All differentiation is merely representative of essential specialization to facilitate the supreme function—the instruction of children. It is therefore essential at the beginning to accept and to live up to the fundamental principle that there is no higher position than that of teacher and teachers are essentially in a colleague relationship to one another.

The second characteristic of the guild is that it starts as a primary democratic unit in each school district, self-governing in every respect. It must carry on its business and its constant study of local educational needs in order that the public may be kept completely informed about the schools. As an organized professional group it must become, along with the parent-teacher group, an extralegal adviser of the local board of education upon matters of professional import. Through local news agencies or its own publications each primary unit has the power and the responsibility to turn constantly the full power of the brilliant white light of publicity on educational deficiencies and questionable practice.

So long as this program is carried on on an unselfish, social basis, the prestige of the profession will permit it to stand as the valid champion of public education. If the power is used for selfish ends, the organization will die of its own weight. All officers of these primary units should be active members of the profession and should serve without pay.

* * *

The primary or local units in each state may then be organized into district groups or divisions which will still operate on the direct democratic basis. The activities of this secondary group are of two types, the first relating to general needs and problems of the profession and the second to the development and operation of professional programs for stimulation and improvement.

The district groups will elect their own officers who, acting with the chairman of each primary group, will form the executive committee between meetings. District meetings will be held at more frequent intervals than at present and the executive committee must be responsible for meetings and programs. By these precautions no local unit, however small, will be neglected. To secure continuity of policy and familiarity with organization procedure, individuals aspiring to office should serve progressively an apprenticeship in the lower offices.

The executive officers of primary and district groups would form also the state congress of guilds, meeting at least biannually for the transaction of essential business. The state congress would discuss and pass upon matters of state and national policy and also elect the essential secretariat.

Each state guild would elect, through its congress, delegates to the national congress of teacher guilds. The national congress would transact the necessary legislative business and elect the essential secretariat. The latter, acting as the national executive, would be chosen by the congress of

states. The state and national secretariats would be confined in their activity to carrying out the will of the guilds, keeping the states and local units informed through essential publication of conditions and needs, and arranging for meetings.

Professional meetings generally would be confined to the states and not carried on a national basis, with certain possible exceptions. Meetings of the national congress of teacher guilds would be confined strictly to business. Real working programs for gatherings can be much more effectively built in districts of suitable size within states. More members can participate and much expense may be saved. Certain specialized interest groups, including administration, research and subject matter, would still be organized as specialized cells within the guild itself and these meetings might easily be carried on within the states and nationally just as at present. Much more of the state and national budgets would be devoted to professional research by trained specialists of valid reputation and these divisions can be given perfect freedom to discover, organize and present facts even if they do not agree with the personal views of the secretariat.

THE question of finance naturally arises. At the present time membership in professional organizations is relatively small. Dues are uncertain. State and national groups operate on most limited budgets. The guild organization could solve financial difficulties quite effectively. Every teacher would be eligible for membership. In terms of a program built around educational and professional interest the greater majority would join. An initial annual fee of ten dollars, collected by the primary unit, might be allocated as follows: four dollars to the primary unit, four dollars to the state congress and two dollars to the national congress. This proportion would give divisions more finance than they had before and would be adequate for rational programs.

THE guilds would operate under one code of ethics for all and this code would grow naturally from the soil as it should instead of being superimposed from above. The code would be reasonable but strict. It would call for trial and disbarment from membership for proved unethical conduct. Adverse action against an unworthy individual might result in license revocation by the state. The prestige of the organization would be strong enough to force unethical and unscrupulous individuals from employment and would maintain a standard of qualification for membership and for performance that would gain the respect of the general public.

It would also have the power through close and well knit organization to protect its members from exploitation by politically minded, interest-subservient, and crooked boards of education. The power that would accrue from the strength of many, operating on a sound ethical basis, would prevent much of the chicanery and peculiar tactics now so prevalent in certain localities. So long as the public felt that the teacher guilds were operating on an unselfish social program, the guild would have popular following.

Finally, the guild would operate in the interests of public education and, as a by-product, for the teachers themselves. It would not resort to imitative pressure lobbying but would confine itself to the direct creation of local public opinion with respect to the purpose, value, condition and needs of public education. Remaining independent of those entangling alliances that naturally follow present organization and pressure procedure, the guild would be under no obligations to return favors; it could not be used to further propaganda of other agencies. It might be the means of building a real profession of teaching in this country. The idea is worth trying before our current organizations completely disintegrate and all building must be done anew.

WITH almost machinelike regularity we expect monthly to have some uninformed layman make a statement or two for publication about "building marble palaces" instead of school buildings. They speak of plain, worthy buildings devoid of ornament and decoration. We have inspected many, many schools in the past decade and have found few "marble palaces" unless size and "palace" are synonymous.

We have seen all sorts of material used for panels in corridors, on stairways, and in toilets. When the life of the building is considered, there are no materials cheaper to install in these heavy duty areas than marble, tile or glazed brick. The saving on repair, painting, replacement and daily cleaning is more than enough to offset the initial difference in cost. Good design and internal beauty of appearance play a definite rôle in the instructional process. We are training for taste in living, and it cannot be secured in the midst of ugliness and barnlike qualities. Let's not apologize any longer for good design or interior decoration.

The Editor

The Real Peril of

A Calm Examination of a Stormy Issue

GRADUALLY the federal government has been assuming powers that were originally exercised by the states and local units of government. The depression has greatly accelerated the tendency toward greater federal participation in the affairs of the states and the people. In fact, this process has developed more rapidly during the present emergency than at any time in our history.

The bulk of our citizenship entertains more than an ordinary degree of appreciation of the courage, skill and energy of President Roosevelt in coping with these most perplexing problems. His initiative was highly instrumental in restoring the confidence of the American people at a time when their faith in leadership, both of a public and private character, was all but lost. The nation owes the President a vast debt of gratitude. It should be observed, however, that the whole recovery program has been carried forward on an emotional basis, similar to the spirit in which we have been accustomed to prosecute wars.

Will the Emergency Program Become Permanent?

This emotional flavor is mentioned not by way of condemnation, for I appreciate this was essential to provide popular enthusiasm for the President's plans, but in order to call attention to the fact that social movements attended by phenomena of this kind frequently take on a different aspect with the return to normal feeling and thinking.

Let us assume that the emergency measures which the President has brought forward have saved us. Certainly his handling of the banking situation was superb. Without federal assistance, it is probable the whole banking system of the country would have crumbled into chaos, bringing unspeakable tragedy in its wake. It may be conceded that without federal succor the railroads would have gone to pot. Who can imagine what dire consequences would have followed such an event? Unquestionably the agricultural situation has been critical ever since the inflation stimulated by the World War. Although it is still far from satisfactory there have been unquestioned advances.

Everyone who takes a modicum of interest in schools is aware of the pitiable plight precipitated upon the nation's schools by the economic stringency. There is no need to rehearse the tale of woe of schools closed, of terms shortened, of teachers and studies eliminated, of salaries reduced and unpaid, of countless children neglected and unprovided for.

I am not questioning these various programs which have been projected during an emergency. How much of this emergency program will finally become permanent is entirely another question. Some persons evidently anticipate that we are to go still further on the road to federal paternalism. Others are equally confident that there will be a reaction toward state and individual rights. Time alone will answer this question. Let us make a calm examination of the necessity and wisdom of the federal government's embarking upon the financial support of public schools as a permanent policy under normal conditions.

There is no conveyance by the states, in the federal constitution, to the federal government of power in relation to schools. If the federal government is to be justified in participating in the educational program of the states, it can be done only under a very specious appeal to the general welfare clause in the preamble. Possibly in this way most anything might be included within the power of the federal government.

Federal Support Leads to Federal Control

Many advocates of federal subsidies for the schools do not believe that federal control or federal interference is involved in federal support. Inevitably federal control must accompany federal support. My experience in handling federal subsidies for education under the limited acts which are now in existence has taught me that you must either have federal control and interference or you must have misappropriation of funds and waste. The method, whereby the federal government has stimulated certain types of education in the states through lands and monies under the Morrill, Smith-Hughes, Smith-Lever and related acts, is well known.

It is interesting to observe that this policy was inaugurated during an emergency in which the very existence of the federal government was at

Federal Subsidies

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stake. The first Morrill Act was signed by Abraham Lincoln while the Civil War was in progress. There was profound anxiety as to the ability of the Union to preserve itself. Trained man power, food and materials that would provide the sinews of successful war might prove insufficient. Accordingly, the act made large land grants, subsequently followed by cash subsidies, to institutions in the states which would teach agriculture, the mechanic arts, and provide military training.

Higher education at that time was largely confined to general culture and professional training in the old established occupations. Sooner or later it was inevitable that a nation like the United States, carved out of a vast undeveloped territory, would have to provide for the teaching of the scientific principles which apply to the development of land and its resources. It was just as evident that the greatest industrial nation of all time would have to have technical and engineering schools. In this instance, national policies adopted in an emergency proved helpful and necessary for the permanent welfare of the people and the country generally. Certain other federal subsidies came into existence in the crisis incident to the World War. For example, the Smith-Hughes Act was passed about that time.

My Experience as U. S. Commissioner

Federal funds which go to the land grant colleges and universities are checked by the U. S. Office of Education. The Smith-Hughes funds are now merged into the office of education. The Smith-Lever and various other acts relating to agricultural education are administered by the United States Department of Agriculture. The office of education has never found it necessary to interfere seriously with the operation of the land grant colleges in the use of the Morrill funds, although opinions of the attorney general of the United States indicate that such interference is possible.

Only once as commissioner of education did I find it necessary to recommend that the funds available be withheld because of obvious waste in a certain institution. The federal board for vocational education has required the state boards to submit definite and detailed plans in advance for the expenditure of funds appropriated under the Smith-Hughes Act. This board has maintained a regional organization and regular inspection. During the time that I served on the board, we found it necessary frequently to withhold funds or require adjustments so that the money would not be misused by the state boards.

The department of agriculture has always kept a close supervision over the funds dispensed through it. It has a policy of rigid inspection. The federal board of maternity and infant hygiene, which was composed of the surgeon general of the Public Health Service, the chief of the children's bureau, and the commissioner of education, operated for eight years upon a basis similar to the federal board for vocational education. The states were required to submit their plans for approval of the federal board. There were a number of states which refused to cooperate with this board and would not accept the federal funds under its management.

Politics Greatly Complicate the Matter

It is an unfortunate fact that the supervision of educational affairs is still highly involved in politics in most of the states, the chief educational officer being compelled to engage in partisan campaigns. The same is true of local school officers, particularly in the county and similar units, with the general exception of city officers. This promiscuous handling of school matters by politicians, long deplored by practically all educational bodies and leaders, greatly complicates the efficient handling of educational funds and in large measure accounts for the necessity of some kind of federal control to prevent misapplication. Some advocates of federal aid to schools have recommended that the money be turned over to the state officials and divided in proportion to the number of children of school age or some similar principle. Such a method of distribution, with the schools subject as they are to political exploitation, could end only in much waste and eventual scandal.

It is common knowledge that, for reasons akin to those mentioned, state funds which have been provided for the schools have been often misap-

plied and sometimes wrongfully withheld. Legislatures have tried to cope with this problem by passing acts attempting to make the school funds sacred or inviolate with varying degrees of success. Possibly a dozen states have made considerable progress in a program of professionalizing the administration and supervision of the schools. There is no immediate prospect that the schools can be taken out of politics in many of the remaining states.

Another factor which adds to the difficulty in the efficient use of federal funds for schools is the fantastic assumption that the average citizen has concerning federal money. Most people consider money coming from Washington like the gifts that they get at Christmas time. They seem to forget that federal money, like state, county, district, and city money, must be raised by taxation. It has been well established in practice that money collected by taxation will be expended with less waste near the source.

Reason and experience both indicate that federal money cannot be expended wisely and efficiently except by exercising federal control and supervision and even then there is considerable waste; witness, for example, the huge pork barrels, such as the appropriations for rivers and harbors and other matters which are the result of logrolling, trading, and political self-interest. If we embark upon a program of turning over federal money to schools without any strings attached, it is only a question of time until the waste, extravagance and misuse of these funds will result in a reaction or a change. The alternative is federal control.

Is It Consistent With the National Welfare?

The soundness of a policy of federal aid does not depend upon the ease with which money may be made available for the schools, the amount that can be secured, the promptness with which obligations are met, and considerations of this kind. The answer to this whole question should be determined in the light of the interests of the people and the welfare of the country.

Is federal control of school matters consistent with the national welfare? The amount of supervision which will be necessary to promote the honest and efficient expenditure of money will bring us face to face with a peril that may eventually lay the ax at the roots of American institutions. The administration of schools in this country has been a necessary and appropriate corollary of representative government. The Declaration of Independence proclaimed emancipation from tyranny and called attention to the establishment of government by the consent of the governed.

Closely conforming to monarchal ideas, systems of education in European countries have been administered by individuals who are the creatures of a central government. The organization, the courses of instruction, the selection of personnel, the methods of teaching, and vital matters of this kind rest with a minister of education or similar officer in some European countries. In the United States, we have hoped that both government and schools could be placed under the direction of the people themselves or their representatives.

Russia Is an Example

Unquestionably, democratic government has some weaknesses. It is probably less efficient than a government under an absolute monarch or a dictator who is able and honest. The best apology that can be offered for popular government was advanced by the New England statesman, Fisher Ames, who was indirectly quoted by Emerson in his Essay on Politics: "Fisher Ames expressed the popular security more wisely when he compared a monarchy and a republic, saying that a monarchy is a merchantman, which sails well, but will sometimes strike a rock and go to the bottom; while a republic is a raft, which would never sink, but then your feet are always in water."

If we turn over to the federal government the responsibility of the operation of the schools, we have forged the weapons whereby some able and self-seeking individual or group may some day transform our political, social and economic system. Lenin, working with a vast, unwieldy and almost illiterate population in Russia, was able to bring about a *coup d'état*. His system could not have survived for more than fifteen years if the school system and the agencies of popular information, such as churches, newspapers, books, clubs and assemblages of the people, had not been either completely eliminated or brought under control. The Russian people today are powerless to know or think except those things that the government would have them know and think. It is hardly necessary to enlarge upon the extraordinary peril which would be encountered by excessive central control of our schools. Probably no one who advocates federal aid would disagree with the opinions here expressed. They would probably insist that nothing of this kind is contemplated.

The history of our country is a plain revelation of gradual usurpation of powers by the federal government. There is hardly an instance where the federal government has embarked upon the financial support, operation or regulation of matters pertaining to the states or individuals where there has been retrenchment. The regulation of alcoholic liquors is a notable exception. Jefferson said the cure of democracy is more democracy.

Wherever we have attempted to cure by federal intervention, usually the result has been more federal intervention. There is every expectation that once Uncle Sam's camel gets his nose into the educational tent, he will some day come inside.

A sure concomitant of federal support is the destruction of local support. It has been stated that tax money expended close to the source is expended more carefully because there is more local interest. People are more careful of their own money than somebody else's. The people develop more interest and initiative in regard to enterprises in which they put their money. If manna is to fall out of the federal heavens for the benefit of the schools, localities will inevitably cut off necessary financial support. Interest and enthusiasm, which in many places have been all too little, will diminish in a corresponding degree.

It is accepted that state support is necessary to have efficient schools which provide anything like equal opportunity for children in different localities. And yet, state aid is sometimes attended by a certain amount of loss of local interest and support. In 1931, the legislature of Florida wisely increased the state appropriation for public schools. Unfortunately, funds were never made available to carry out fully this legislation. This deplorable situation was further enhanced by the fact that many county boards and district boards cut down the financial support that they had been giving the schools because of the increased appropriation by the state.

Federal Aid Not Needed Under Normal Conditions

When all the state funds failed to appear, the schools suffered a double disappointment. As surely as the night follows the day, increased responsibility by the federal government for the financial support of schools will be attended by decreasing support in certain states and localities. Even though the financial losses are small, popular interest which has been built up slowly and tediously will disappear quickly. Where a man's treasure is there is his heart also.

I have shown that federal aid to the schools must be attended by federal control, under present conditions, if we are to avoid general waste and misuse of these funds. I also have pointed out that federal control will tend to become greater and that centralized operation of the schools is a menace to our institutions and ideals. Finally, let it be observed that there is no necessity for federal aid under normal conditions whatever we may do in times of emergency like the present. All the states are able to maintain a uniform efficient system of schools on all levels from the kindergarten through the university without severely taxing their resources. A bulletin, published by the National Education Association,[1] which goes into the question of the income, wealth and ability of the different states to support schools shows that no state is unable to finance its own school system.

This bulletin was based on information collected by the U. S. Office of Education, the National Industrial Conference Board, the National Bureau of Economic Research, and other reliable agencies just previous to the onset of the depression and the information assembled reveals the fact that in 1926 no state was expending more than 4½ per cent of its income on support for its schools, while many were spending less than 2 per cent. The percentage of value of school property in relation to all property was scarcely over 2 per cent in the states where it was highest and, in some states, it was less than 1 per cent. The same bulletin shows that the expenditure for schools in the various states is a mere fraction of the amounts expended for various other things of much less importance.

Number of Children Is Decreasing

A similar bulletin, published in 1932, on facts on school costs[2] presents the same data for the year 1930, after the depression had begun to make itself felt. There is some increase in the percentage of school costs in relation to the income of the states, but this is not sufficient substantially to alter the situation. In 1930, the highest percentage of school costs in any state was approximately 6 per cent of the state's income. This varied down to a minimum of approximately 2 per cent in the lowest state. Neither is there any significant difference in the percentage of value of school property in relation to all other property within the states. This item varied in 1930 from something over 3 per cent in the highest to less than 2 per cent.

In this connection it should be noted that in 1930 there were 128,840 fewer children under five years of age in the United States than there were in 1920. We have passed the peak of population increase in the United States. Social and economic pressure, resulting in birth control, has halted the population increase in a way similar to the situation which has long existed in France and some other countries. This definitely means that the burden of supporting schools will be relatively less in the future than it has been in the past.

It is evident that there is no necessity for federal financial assistance to the schools under normal conditions as no state, even in prosperous times, has ever expended more than a trifling proportion of its resources on its schools.

[1]Research Bulletin of the National Education Association, Vol. VII, No. 1, 1929.

[2]Research Bulletin, National Education Association, Vol. X, No. 5, 1932.

Will Sound Pictures Tend to Increase Class Size?

By A. J. STODDARD
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THE question of class size is one of the most perplexing problems in educational administration. There was a time, back in the first half of the nineteenth century when the Bell and Lancastrian schools flourished, when it was not uncommon for one teacher to instruct several hundred pupils.

The monitorial system was used, the teacher instructing a small group of the older and brighter pupils, who in turn carried the instruction back to the class broken into small groups, one monitor for each group. The teaching process was largely on a drill or memorizing basis, with the teacher giving the learning directly or indirectly to the child.

In a few years these monitorial schools no longer served their purpose and by 1850 they had practically disappeared. They existed at a time when modern teaching devices and methods were unknown. Under the circumstances, it is logical that these early attempts to teach children in large class groups should have failed.

There have been many limiting factors in this problem of class size. The most constant one has been financial, as class size is always intimately related to teacher costs. Sometimes the size of the available room, or the nature of the teaching equipment, or the size of the district served by the school, or some other material condition has determined class size.

A few generations ago it was not uncommon in elementary schools to find sixty in a class. Secondary schools succeeded in keeping their classes smaller through establishing standards for accrediting their graduates for college entrance but they too were always struggling to reduce class size.

The tendency was to reduce class size if possible rather than to attempt to change methods and adapt the teaching processes to larger groups. The procedures were taken as settled and the class size had to be adjusted to fit the established methods of procedure. Gradually the size of classes became smaller until in 1929, before the depression reversed the tendency, the following sizes were accepted as about the standard: elementary school, 40; junior high school, 35; senior high school, 30. So generally established were these standards that classrooms were constructed to accommodate the number indicated. In many high schools rooms were deliberately built so as to limit class size.

This tendency toward smaller classes in the last generation or two seems paradoxical until it is analyzed. It is true that teachers were becoming

The advent of sound pictures and radio promises to make possible decidedly different procedures with regard to class size. An experiment undertaken in the schools of Providence, R. I., reveals some objective evidence as to the extent to which sound pictures may be factors in determining the number of pupils in instructional groups

better trained, methods were improving, supervision was developing, teaching devices were multiplying and the whole teaching and learning situation was becoming more efficient each year. Classes probably would have grown larger had it not been for the fact that along with the advance in the efficiency of teaching came a new emphasis upon the rights of the individual child.

This emphasis upon the rights of the individual resulted in many attempts to individualize instruction while keeping children in classes of the usual size. It was realized that the curriculum, the method, and the rate of progress through subject matter all had to be adjusted to meet the individual's needs. The class could no longer be taught as a unit but must be broken down into smaller groups.

Another phase of this question of class size is concerned with the learning process itself. The child may acquire the raw materials of learning through the senses; that is, he may secure the sensations that form the basis of perception and understanding, but learning does not result until the second step of the process is taken, namely, the doing of something worth while with these materials of learning by the child himself. This participation by the child may take place as the sensations are received or it may come later. According to the present theory of learning, the child learns as he uses what he sees and hears and otherwise senses, in solving problems that are real to him.

Let us consider the implications of this theory of learning upon class size. If the interest of the child can be held it may be possible to secure a high degree of attention from him even when he is a member of a large group. This may be merely a question of discovering and using devices that will cause him to concentrate his attention on what is being seen or heard or otherwise sensed, so that the proper sensations will be received. Yet they must be so received that the child either then or later is impelled to do something with them either mentally or physically or both. The more appealing the teaching device, therefore, the stronger the basis of learning, and, what is more important to the subject under discussion, the larger the group may be in which the child is when he receives his impressions.

Teachers have already decided that the instructional group should not necessarily be the same size for all learning situations. It may be desirable at times to teach the class as a whole. Under other conditions it may be much more efficient to break the class into groups. Again it may be possible to present certain phases of a unit of instruction with the children combined into large groups while the preparatory and follow-up phases of the unit would be carried on with small groups. That is, where

A recent experiment in Providence, R. I., presents evidence that sound pictures are a valuable teaching device and make possible larger classes.

TABLE I—PROGRAM OF THE SOUND PICTURE EXPERIMENT

Time Schedule

E	Veazie	9:06	E	Thayer	11:00	E	Laurel Hill	1:30
C	Candace	8:30	C	Academy	11:00	C	Windmill	8:30
c	Broad	10:00	*c*	Vineyard	11:00	*c*	Summit	10:30

E—Mass experimental, 150 pupils with sound pictures
C—Mass control, 150 pupils without sound pictures
c—Small class, 40 pupils without sound pictures

Teacher No.	*1st Unit Apr. 24-28 Beetles*	*2nd Unit May 1-5 Percussion Gr.*	*3rd Unit May 8-12 String Choir*	*4th Unit May 15-19 Brass Ch.*	*5th Unit May 22-26 Frogs*	*6th Unit May 29-June 2 Butterflies*
1.	*c* Broad	C Candace	E Veazie	*c* Summit	C Windmill	E L. Hill
2.	C Candace	E Veazie	*c* Broad	C Windmill	E L. Hill	*c* Summit
3.	E Veazie	*c* Broad	C Candace	E L. Hill	*c* Summit	C Windmill
4.	C Academy	*c* Vineyard	E Thayer	C Candace	*c* Broad	E Veazie
5.	E Thayer	C Academy	*c* Vineyard	E Veazie	C Candace	*c* Broad
6.	*c* Vineyard	E Thayer	C Academy	*c* Broad	E Veazie	C Candace
7.	E L. Hill	*c* Summit	C Windmill	E Thayer	*c* Vineyard	C Academy
8.	*c* Summit	C Windmill	E L. Hill	*c* Vineyard	C Academy	E Thayer
9.	C Windmill	E L. Hill	*c* Summit	C Academy	E Thayer	*c* Vineyard

the nature of the learning situation does not ensure pupil participation without individual checking, the work can be carried on with small groups to make checking possible, but where there is reasonable certainty that the child will give his attention and secure the learning desired, the instructional group may be large.

This assumption that it might be possible to have children do certain types or phases of learning in large groups, many times the size of present school classes, was based upon the use of some teaching device that would cause the child to attend intensively to sensations and also either then or later to do something worth while with these sensations. Many new devices and methods have come into use in the classroom but they have not materially affected the size of the instructional group, except to reduce it. It is reasonable to suppose that some of these devices might have made possible the enlargement of class groups but practically no experimentation is recorded on the subject.

In order to secure some objective evidence on the question of the extent to which sound pictures may be a factor in determining class size, a comprehensive experiment was conducted in the public schools of Providence, R. I., in the spring of 1933. Arnspiger the year before had measured certain phases of the effectiveness of sound films as teaching aids, the films having been produced definitely for instructional purposes on the elementary and junior high school levels. The results of this experiment indicated the superiority of sound pictures as a teaching device and presented a challenge to all who are concerned with increasing the efficiency of teaching procedures. Similar findings resulted from a recent experiment along the same lines at Harvard University. This determination of the specific contribution of talking pictures to learning when used with the usual size of class groups raised the question of the degree to which talking pictures might make possible the enlargement of classes.

Nine class groups were used in the Providence experiment. There were three experimental groups of about 150 pupils each, three large control groups of the same size, and three small control groups of about forty pupils each. The nine groups were chosen from the sixth grades of the city schools and were matched, as nearly as possible, as to intelligence, social background, chronological age and educational achievement. Nine teachers were provided who had no other teaching duties during the experiment. They were rotated as shown in Table I.

Six units of instruction were used as the basis of the experiment, three in science and three in music. Sound pictures were based upon the subject matter of the units. In fact, any teaching or learning material that was included in the pictures was included in the unit so far as it could be expressed verbally. Of course, not all of the unit was included in the picture based thereon, as certain definite criteria limited the selection of the material in the unit that could be used profitably in the picture. All tests were based upon the units that were used in common by all nine teachers on each subject.

Each subject was taught for five days and for thirty minutes each day, the talking picture being substituted with the experimental groups for about ten minutes of each of three of the five periods. Every teacher was supplied with all the aids that were available or could be devised, such as stereopticon slides, pictures, drawings, outlines, supplementary references, live specimens, aquariums, musical instruments and phonograph records. The only difference between the experimental and the control groups, so far as aids to teaching were concerned, was that the former substituted the aid of sound pictures for other devices for a total of thirty minutes each week.

The question to be answered was whether the use of sound pictures would enable the teacher to instruct a class of 150 pupils as effectively as a

class of forty could be instructed without the aid of sound pictures. It was considered that the results would be highly significant educationally if the large experimental groups made as much progress as the small control groups. This experiment was conducted not to determine the relative effectiveness of sound pictures as a teaching aid—that question was answered by the Arnspiger and Harvard experiments—but rather to determine whether sound pictures might be a real factor in class size.

Initial and final tests were given to all groups. The same tests were used for both purposes. They were objective in nature and each included some 200 test elements. Some 14,000 test papers were included in the experiment. The reliability of the tests was computed and found to be satisfactory with the coefficients of reliability ranging from .84 to .91. The tests were based upon the material included in the six units of instruction. That is, no information was involved in the tests except that included in the units. Many of the questions in the tests were answered in the units but not in the pictures, but not vice versa as the pictures and accompanying lectures were based on the units. Thus it will be understood that the tests favored the control groups to the extent to which elements were included based exclusively on the material included in the unit that was not in the picture.

A word of explanation is needed as to why the large control groups were included. If the results of the experiment should show that the large experimental groups learned just as much as the small control groups, the conclusion could not be drawn that the injection of sound pictures had made such results possible. That is, it could not be concluded that the sound pictures had been the determining factor. The explanation of the results might be that it is just as efficient to teach pupils in classes of 150 as in classes of forty.

TABLE II—SUMMARY OF SCORES FOR THE THREE GROUPS

	1 Small Control (SC)	*2 Large Control (LC)*	*3 Large Experimental (LE)*
Average of final scores	88.2	82.7	89.4
Average of initial scores	45.8	43.8	45.0
Gain of average final over initial scores	42.4	38.9	44.4
Percentage gain of average final over initial scores	92.6	88.9	98.7

The injection of the large control group into the experiment made it possible to isolate the sound picture as a factor in the results.

Elaborate and detailed teaching "logs" were kept by all teachers. These logs constitute an interesting phase of the experiment. The procedures used in teaching the large groups have interesting implications for a more extensive study of this problem of large classes upon which authentic information has been lacking. The groups were taught but thirty minutes each day Every precaution was taken to make sure that there was no additional teaching on the subjects in the experiment outside the thirty-minute periods. As I have indicated, all teachers were given all the help that could be provided in teaching any of the groups. It was not a case where those teaching the control groups had little help and few aids while those teaching the experimental groups had much help, many aids and the sound pictures in addition.

TABLE III—COMPARISON OF GAINS FOR THE THREE GROUPS

Average gain by the small control group	42.4
Average gain by the large control group	38.9
Difference in favor of small control group over large control group	3.5
Average gain by the large experimental group	44.4
Difference in favor of large experimental group over small control group	2.0

In order that a somewhat more vivid picture of the set-up of the experiment may be gained, the program is reproduced (Table I). It indicates the rotation of the teachers and shows that every teacher taught each of the types of groups twice and taught in every one of the schools.

A summary of the results of the experiment is shown in Table II.

Let us analyze these results somewhat further by taking as the base the gain shown by the small control group and comparing the gains by the other two groups with this base. Results of this analysis are shown in Table III. The large control group gained 8.2 per cent less than the small control group, while the large experimental group gained 4.7 more than the small control group. It is evident that the sound pictures were a real factor in the gains shown by the large experimental group because there was a difference of 12.9 in the percentages of the gains between the large experimental and the large control groups as compared with the gains of the small group taken as the base.

Thus, the experiment presents evidence tending to support the following conclusions:

1. Classes of 150, taught with the same methods and devices as classes of forty, do not learn as much but classes of 150, taught through the substitution of sound pictures for some of the methods and devices used in teaching classes of forty, learn more than the classes of forty.

2. Sound pictures must be considered a real factor in the question of class size.

The Superintendency Union in Massachusetts

By M. M. CHAMBERS
Ohio State University

THE universally recognized need for larger local units of school administration is being met gradually by diverse methods in different sections of the United States.

The true county unit, in which the county board of education is the sole local educational authority, holding all school property, levying taxes and employing all school personnel, exists in some states south of the Mason and Dixon's line, where the county has always been the principal unit of local government. For example, Maryland has had the county unit type of organization for several years, while the state of West Virginia adopted the county unit plan in 1933.

In many states of the Middle West the county board of education levies no taxes and holds no real property, but merely exercises supervisory powers over the smaller local districts. City and village districts are often entirely exempted from its jurisdiction. Thus the county district is a transparent blanket superimposed upon the patchwork of local districts, with holes through which cities and villages protrude. A few states have this type of county school administration in some counties and the true county unit in others, under statutes permitting the voters of any county to adopt the county unit at their option. One such state is Oregon.

The Situation in Massachusetts

In New England, where the county was originally little more than a judicial district, and the smaller town is traditionally the chief local unit, the trend toward larger school administrative areas has produced a still weaker form—a loose league of local districts created solely for the purpose of cooperatively employing certain supervisory personnel for the union, leaving untouched the independent powers of the constituent small districts in all other respects.

The nature of the superintendency union in Massachusetts is exposed by a recent decision of the supreme judicial court defining the powers of the boards and officers concerned.[1] The towns of Yarmouth, Dennis and Brewster have been joined in a superintendency union since 1903, and employ a superintendent of schools whose salary is apportioned among the three. Since 1913 the joint school committee had employed a supervisor of music on a similar basis. In June, 1931, the superintendent offered the plaintiff employment as music supervisor, and on September 1 notified him of his appointment for a term of one year at a specified salary. The plaintiff accepted and worked until December 31, when the three school committees severally voted to terminate his services as unsatisfactory. He was not permitted to teach thereafter, and subsequently entered suit against the town of Yarmouth claiming breach of contract.

Court Decision Favored the Defendant

The trial court directed a verdict for the defendant, and the plaintiff's exceptions thereto were overruled by the supreme judicial court, which held that the action could not be maintained for numerous reasons: (1) so far as the record disclosed, the plaintiff had never been appointed either by the joint school committee or by the several school committees acting separately, but only by the superintendent, who has no authority to make appointments; (2) even if a regular appointment were assumed, the school committees are authorized by statute to dismiss a teacher at will at any time unless he is "on tenure," which the plaintiff was not; (3) superintendency unions are not empowered to employ any personnel other than superintendents, school physicians and school nurses, and are without authority to hire either teachers or special supervisors; (4) each town school committee must act independently in employing teachers, and cannot enter into a joint contract for that purpose.

This decision vividly illustrates the closely limited character of the powers of the superintendency union and exposes its essential weaknesses. Even staid old New England will probably eventually conclude that effective school administration under modern conditions requires that larger powers be entrusted to the superintendency union. It would perhaps be foolhardy to suggest that an entirely new and more potent administrative unit of larger area should supplant both the town district and the superintendency union in a commonwealth where the tradition of the small local school unit still remains as strong as it is in the state of Massachusetts.

[1] Pulvino *v.* Town of Yarmouth (Mass.), 189 N. E. 599 (March 27, 1934).

"Seeing Through Johnny and Seeing Johnny Through"

In this, the second of a series of three articles on guidance and changing employment demands, Doctor Edgerton points out that youth today must follow a somewhat more difficult course in choosing, preparing for and adjusting to life work. Those who plan intelligently are not likely to find their future opportunities limited by lack of suitable background

By A. H. EDGERTON
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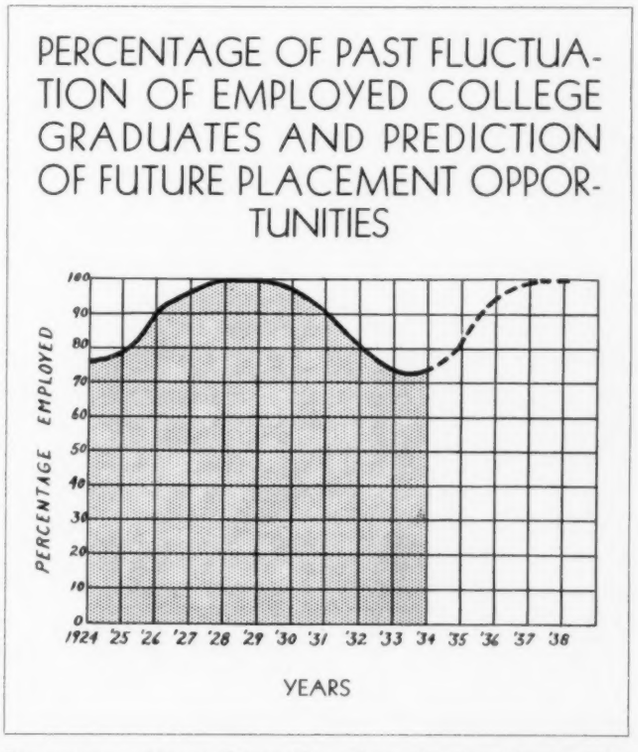
ALL educational practices that have failed to demonstrate their worth in a changing social order are now under fire. Education is forced to share society's mistakes in worshipping those false goals and fixed solutions that proved so pitifully inadequate for meeting the new needs of our time.

This general dissatisfaction with all outgrown stereotyped methods should challenge educational and guidance workers to face squarely the many pressing problems that confront mankind in adjusting to the changing needs of social and occupational life.

Out of the many demands of the past came a new philosophy or point of view characterized by purposeful instruction and individual guidance. The potency of this combined movement has been so great in recent years that few school systems have escaped its impact, even where reactionary forces have endeavored to combine their efforts to preserve the *status quo*. Amidst much confusion and skepticism, we are awakening to the possible attainment of much needed improvements in social, educational and occupational planning. Notwithstanding the contributions of all other agencies, the desired improvements can be accomplished only by means of appropriate education and trustworthy guidance.

But do existing school systems possess the necessary mobility to ferret out, grapple with and seek solutions for the new adjustment problems that modern developments have forced upon us? Even so, do these sweeping adjustment demands require individuals and schools to make perpetual changes in their plans to meet the continuing changes of a progressively complex social order? Perhaps a brief analysis of several significant changes and corresponding adjustments will aid in answering these questions.

Since we are living in a day of emergency, there is some danger of blindness to the far-reaching changes and opportunities about us. Today we are quite conscious of the general complexity and con-



Percentage of past fluctuation of employed college graduates as compared with predictions for future placement.

fusion of the modern economic world with its unemployment and consequent poverty, shifting industrial conditions and occupational insecurity. Are we equally aware of the many new training and guidance needs that have been made essential by these disconcerting changes in social and occupational life? Then, too, the restricted employment of youth under sixteen and the prevailing oversupply of labor have forced continued education upon many boys and girls who previously left school as soon as the attendance laws permitted.

Are those responsible for the secondary schools, now overflowing with this large group of less than "mine run" scholastic ability, seriously attempting to meet the difficult adjustment problems involved? Likewise, in every community there are high school or vocational school graduates who, unable to attend college or secure employment, now find themselves without educational chart and occupational compass. Have the respective localities been thoughtful enough to organize advisory committees or set up guidance services to assist these deserving young persons in continuing their educational and life plans through suitable postgraduate study, supplementary vocational training, college and other correspondence or extension courses?

These implications of changed needs and forced adjustments stress the present plight of youth in America. Now we shall examine some of the possible outcomes and opportunities. In the first place, improved child labor laws and code provisions promise to eliminate nearly all types of employment up to the age of sixteen. This tends to lengthen young people's schooling, strengthen their general background of education and provide the advantages of special training. The recent trend to minimum wage provisions will make it generally unprofitable to hire young, untrained workers. This development is certain to keep youth in school longer.

Then the movement toward unemployment insurance promises to make stability of employment a fundamental necessity. This move to force employers through job insurance to make the worker's status more permanent will result in improved adjustment and increased security and most certainly will lead to greater satisfaction, peace of mind and happiness. These and other significant changes that will be discussed later clearly indicate that individuals and schools must make drastic adjustments to meet new opportunities now appearing on the occupational horizon.

Even a cursory examination of these changes causes one to be optimistic about the future outlook for youth. To be sure, the usual run of routine jobs will no longer be available, but instead there will be greater training opportunities for all young persons who are interested. Since it is no longer possible to secure meager jobs, the young man or woman must turn seriously to the greater possibilities in adequate preparation for a richer life of useful employment. He must sense the swift changes that are taking place in occupational requirements and be quick to seize new openings where opportunities for learning and growth exist. He must be alive to wise choices of growing occupational endeavor and eager to seek knowledge of changing employment conditions.

He will need to be less concerned with immediate money making possibilities and more enthusiastic about the worth of the job in furthering his life plans. Yes, youth must follow a somewhat more difficult course in choosing, preparing for and adjusting to life work. However, those who make intelligent plans for this longer period of general and special preparation before entering employment are not likely to find their future opportuni-

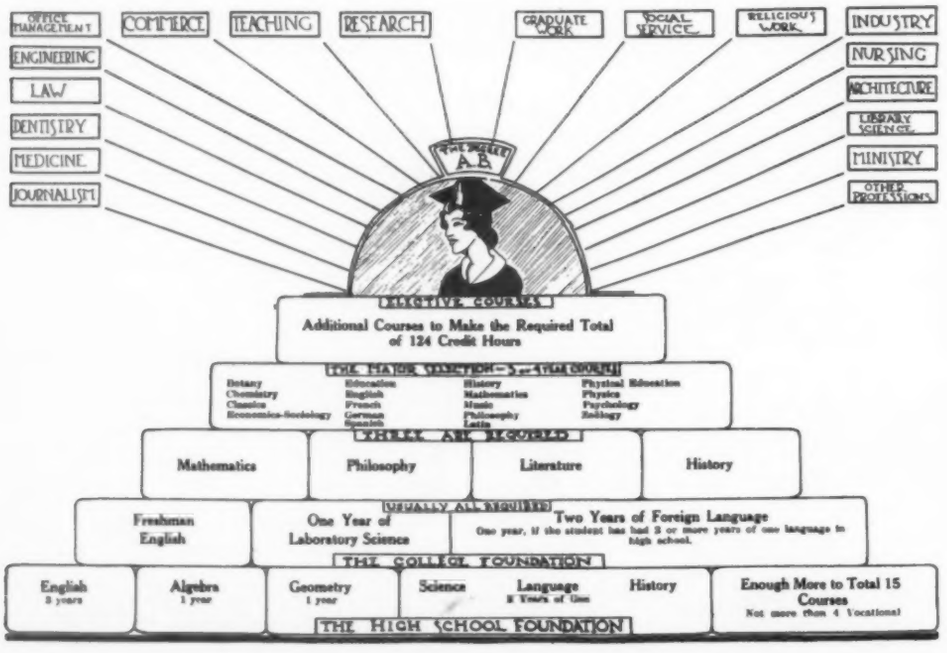


Chart of educational avenues of travel from the high school in Appleton, Wis., to life occupation.

These girls are receiving some real experience on standard office equipment before entering commercial employment.

ties limited by lack of educational background.

What are some of the salient facts to be kept in mind if we, and in turn our pupils, are to obtain a fairly accurate picture of our changing occupational world? About three-fourths of employed men and women will continue to work in manufacturing, trade and transportation. The old crafts have mostly disappeared, with the result that their skills and functions are being given to the machine and the assembly line. Many men and women are progressing and will continue to progress vocationally through a widely diversified industry or organization rather than through a single occupation. Individuals secure positions and then other positions and so their life work patterns develop.

This is as true of the professions as it is of occupational pursuits. Every profession is composed of specialized functions and today, through division of labor, professional men are becoming job specialists. The law profession is confronted with the taking over of many of its traditional functions by banks, trust companies and governmental agencies which in turn hire lawyers to do their specialized work. Today engineering can be defined only in terms of its specialized positions, which likewise are many. Thus it will be seen that for most persons occupational life means the getting of specialized positions and the making of progressive adjustments to changing job specifications.

Occupational life demands not one choice, not one decision, but a never ending series of choices and decisions. Consequently, it is evident that more stress must be placed upon the development of personalities capable of making the rapid adjustments demanded by the many surprises of a changing world. Educational and guidance workers must use all appropriate techniques at their command in securing personality adjustment through teaching, testing, counseling, occupational study, record data, vocational preparation, placement and work situations.

It is now predicted, as the result of a series of nationwide occupational trend and demand studies, that in the job hunt of tomorrow the race will be to the courteous rather than to the ruthless, and to the versatile rather than to the single-track minded. It has been found, among other things, that the individual who will be in demand is one who can get along successfully with other persons. Employers believe that social intelligence is to be an increasingly important factor in future vocational success. Such shortcomings as poor self-control, discourtesy, dishonesty and lack of dependability should be overcome, employers insist.

The future employee will be expected to prepare for, and do well, two or three kinds of work rather than one highly specialized type, as has been the case in the past.

Already employers are advising young people to explore the possibilities in small and local businesses, especially those involving creative ideas in science, art, literature and merchandising. These brief references to the changing employee specifications, as exemplified by 338 representative employers, should suggest new problem attacks to educational and guidance workers. Secondary schools and colleges alike are still preparing individuals for occupational or professional specifications that will not exist when the training is completed.

Broader and more flexible training courses are needed to meet the ever changing demands in all occupations. There is increasing necessity for switching from one occupational classification to another, as a result of growing uncertainty of future stability in many callings. This means that individuals must be trained to recognize change as well as for a "catch-as-catch-can" grapple with life. Educational institutions can ill afford to

graduate individuals who have little conception of the many-sided needs in the workaday world. Unless school work is to be markedly different from everyday life, both education and guidance must emphasize breadth of individualization rather than narrowness of specialization.

A promising development today is observed in the changing attitude toward and procedure in employment. New employees are being selected more and more on the basis of carefully studied qualifications rather than by hit-and-miss methods. Nearly all employment officers report that requests for applicants are becoming more specific. Practically all "help wanted" orders specify definitely the particular educational training and personal qualities most needed for satisfactory placement and adjustment in the designated positions. Persons responsible for selecting workers are more inclined to scrutinize the general training and special fitness of the most likely applicants. Certainly, the present period has placed a high premium upon education for social flexibility and occupational adaptability in all human relations.

Traditional Employment Methods Disappear

Young persons must be made to realize that the day has passed when they can count on securing good employment opportunities through mere "pull," friendship or accident. Traditional methods of hiring through "help wanted" signs or advertisements are fast giving way to stringent selection on the basis of demonstrated general and special abilities. This frequently includes reports of school and outside performance.

The enormous cost in time, energy and money, resulting from individual maladjustment, bespeaks the crying need for systematic and economical guidance. Even a casual analysis of the facts pertaining to failures in school and occupation should indicate the necessity of remedying these inexcusable social ills. More than 27,000 children fail annually in American secondary schools. Before the onset of the depression approximately 40 per cent of adult workers and about 50 per cent of juvenile workers were dissatisfied with their jobs and desired to change occupations.

Some persons still believe that vocational guidance is a mysterious gift possessed by a counselor who sizes up an individual and then advises him to choose this course, school or college, to become a lawyer, dentist, salesman, auto mechanic or what not. The real aim of guidance is to aid individuals in recognizing when plans and choices should be made, and to assist them in obtaining the facts necessary to satisfactory decisions. The main purpose, therefore, of a program of guidance services in any school or college must be so to direct the individual in understanding himself, his educational environment, his worldly surroundings and his relations to these, that it will make possible those choices leading to topnotch achievement.

The importance of this emphasis is apparent in the results of a recent study of pupil reactions in representative American secondary schools. The conclusions stated: (1) that secondary school pupils are not giving enough thought to the matter of choosing life occupations or educational plans; (2) that when left to their own devices in the choice of an occupation or a college, pupils do not choose wisely; (3) that pupils are most influenced in their vocational and educational choices by persons who are not well qualified to give advice in such matters; (4) that the school is not functioning as it should in helping pupils to decide upon a vocation or a course of training.

At present fewer and fewer school administrators and teachers conceive of the school's responsibility for personal, educational and vocational guidance as being limited to occasional, haphazard conferences between pupils and advisers. With few exceptions, representatives of secondary schools and institutions of higher learning are agreed that the present complexities in social and economic life, together with the rapid expansion in educational offerings, have made direct, systematic and reliable counsel not only desirable but necessary. To this end the growing state cooperative guidance programs for secondary schools and institutions of higher learning are commendable.

Some Practical Suggestions

Since guidance must be an integral and functioning part of the whole school organization, the following practical suggestions are made:

1. That we first make the machinery that we possess function better for guidance purposes before setting up more elaborate organization in personnel, that is, first relieve from teaching duties, disciplinary work and routine tasks those persons who have indicated interest in and capacities for advisement.

2. That gradually the services in personal, educational and vocational guidance be broadened and extended in scope to overcome the too prevalent hit-and-miss practices, resulting largely from our failure to stress self-guidance based upon facts rather than guesses.

3. That all teachers be assisted to do more rather than less guidance when special counselors are appointed, since these specialists as chairmen of the systematic adjustment services should assist teachers to secure a many-sided diagnosis of the individual and a trustworthy analysis of occupational conditions, possibilities and demands.

Special State Taxes *Versus* General Revenue Funds for Schools

By W. I. PEARMAN
College of the City of New York

PRACTICALLY every state in the Union sets aside certain state revenues to be used solely for specific educational activities. There has been much controversy, especially since 1920, regarding which policy — the dedicating of special revenues for education, or the reliance upon state legislatures to provide revenues by appropriations from state general revenue—secures greater uniformity of annual income for state educational activities.

It would be difficult, if not impossible, to show that either of these policies within itself ensures uniformity of annual income for state educational activities. Many other factors must be considered, two of which seem to be especially significant. In the first place, the type of general fiscal administration employed by the state has a definite bearing on which policy may be used to better advantage. This is particularly true of support for state colleges and universities. Second, the method by which state aid is apportioned among individual local school districts may determine which policy is more advisable for securing state revenue for public schools.

Main Purpose of Special Taxes Is Continuity

Those who advocate the support of state colleges and universities by legislative appropriations believe that education should have nothing to fear from a comparison of its needs with needs of other functions of state government. This may be true in those states with up-to-date types of state fiscal administration. But what of the educational institutions in the states that have defects in fiscal administration? Can educators in these states feel that their requests for appropriations will receive impartial and equitable consideration?

The main purpose of levying special taxes for state support for local school systems is to secure continuity over a period of years in the annual amounts distributed by the state among local school districts. In most cases, the rate of the first tax so levied was determined by the amount per pupil in attendance, or per census child, which that tax rate could be expected to produce each year. When the proceeds of the tax were collected, each district received its pro rata share of the total collections. In 1920, of the twenty-eight states that used special state taxes for state aid to local schools, twenty prorated state aid among local districts. The prorating method is commonly regarded as one of the worst methods by which state aid has been distributed.

Some States Have Retained Special Levies

Since 1920, many states have changed from the prorating method of distributing state aid to a system under which the state guarantees to local districts a certain amount per teacher employed, or obligates itself to supplement local revenue up to a point where a certain annual amount per teacher employed, or per classroom unit, is assured each local district. Not all of these states, however, have abandoned their special levies for state aid. In the states that have retained their special levies for state aid, will the amounts produced by special taxes determine the maximum that the state will devote to local schools, or will the state make appropriations in addition to these special revenues to make up any deficit in revenue for its commitments?

In the case of Missouri, which in 1929 accepted an equalization program, the revenue available for distribution was limited to special revenue. This amounted in 1932 only to approximately 50 per cent of the amount necessary for the full provisions of the equalization program. Each district received only about 50 per cent of the amount that it would have received had adequate revenue been available. This seems at first to be equitable. The following illustration shows that it may be unfair to certain districts, especially those that are poor. The state guarantees, on the basis of a tax levy of $0.20 per $100 of assessed valuation, $1,000 for each high school classroom unit. A district raising $100 per classroom unit is entitled to $900 per classroom unit from the state under the equalization law. A district raising $500 per classroom unit is entitled to $500 per classroom unit

from the state. Since only 50 per cent of the state apportionment was available, the district first mentioned received $450 from the state, while the second district received $250 per classroom unit from the state. The first district then had $550 per classroom unit, while the second district had $750.

The history of state aid for public schools in New York seems to indicate the way in which continuity in annual amounts of state support to each local district can be maintained. In 1856, New York pledged itself to make annual grants to each local district that met certain minimum qualifications. At the same time, a special tax was levied for state aid. The quotas to local districts were paid from the proceeds of the tax, and the remainder of tax proceeds was prorated among districts on the basis of aggregate daily attendance of pupils. The amount required for quotas grew until in 1891 state aid distributed on the basis of quotas was greater than the amount prorated. In 1902, the special tax levy was discontinued, and appropriations were made from general revenue for the amounts required to fill district quotas. The state has until recent years fulfilled all its obligations to local districts, and has adopted a plan for equalizing educational opportunities throughout the state. The program undertaken by the state involved an increase of from $12,972,876 in 1920 to $88,667,316 in 1930. The extreme curtailing of state revenues in 1932 and 1933 caused the governor to recommend no increase in expenditures for state aid to local schools in 1933 and 1934 over the 1932 figure. New York's experience shows that continuity of annual amounts of state aid for individual local schools can best be obtained by securing state legislation that guarantees certain annual quotas to local schools either in flat sums or based on educational need, and by appropriating sufficient revenue to meet these commitments.

This plan secures what a dedicated revenue policy cannot guarantee. It ensures continuity of annual revenue from the state for each local district, rather than merely uniformity in the sum total of annual grants of the state for state aid to local schools.

In those states that still distribute the majority of state aid on a prorating basis—and in 1930 there were fourteen such states—general revenue appropriations do not offer the security that dedicated tax revenue seems to provide. Since these states do not distribute general aid on the basis of an objective measure of need, appropriations for this purpose may suffer by comparison with the needs of other government functions which are determined more objectively. On the other hand, when a state has adopted a plan of distribution based on some satisfactory and objective measure of need, the superiority of the general revenue policy appears to be clear.[1]

[1]This article is taken from a study by Mr. Pearman, entitled Support of State Educational Programs by Dedication of Specific Revenues and by General Revenue Appropriations, Teachers College, Columbia University, New York City.

Why I Disagree With the A. H. A. Report

By FRANK W. BALLOU
Superintendent of Schools, Washington, D. C.

The following statement covers in general my reasons for not signing the report on Conclusions and Recommendations of the Commission on the Investigation of History and Other Social Studies of the American Historical Association.

The report is destructively critical of current educational practices which the commission did not adequately investigate and dispassionately appraise. It does not present a reasonable, definite, constructive program for the improvement of instruction in the social studies. Such a program I believe should have been the main feature of the report.

The final volume on Conclusions and Recommendations does serious injustice to the scientific movement of education as described in the chapter on "Tests and Testing." This chapter is not based on any thoroughgoing investigation of testing in general or on any conclusions reached in the discussions of the commission. The vigorous protests made by me and some of my colleagues against the chapter have been to a large extent ignored in the final revision as published. Moreover, the chapter itself is not based on conclusions and recommendations developed in the volume prepared by Krey and Kelley and scheduled to be published by the commission.

Destructive criticism of the teacher and methods of teaching and teacher training institutions is bound to arouse antagonism rather than to promote unity and improvement in American education.

The chapter on "Selection and Organization of Materials of Instruction" is a disappointment. It should have been the heart of the volume and should have included a vital statement in specific terms outlining subject matter now being taught and the changes and improvements in subject matter which the commission thinks should be made. This the chapter does not do. The discussion is so general that frequently one cannot determine whether the discussion has to do with elementary schools, secondary schools or colleges and universities.

As a member of the commission and a superintendent of schools, it was my hope that the final volume would be the basis on which constructive improvement of teaching the social studies might be based. The report is inadequate in this respect.

Modern Curriculum Silenced Clamor for Tax Reduction

By ROLAND R. DEIMER
High School Principal, and
CHARLES J. DALTHORP
Superintendent of Schools, Aberdeen, S. D.

MOST public school systems have felt the effects of the economic depression because self-appointed national saviors and tax reducers have insisted upon curtailment of activities and curriculums. Educators have resented this interference, and have been humiliated and chagrined by the attacks that have been made upon the programs offered by the public schools.

In most cases school administrators and boards of education have come to the defense of the existing programs. Although a few school authorities have passively allowed the core organization and the vital parts of the program to be destroyed or eliminated, the majority have been stimulated by constructive criticism to make a more thorough analysis of educational needs and values in their schools. The latter group has revised and reorganized the programs to meet existing conditions, and has eliminated activities and procedures that are not functional at the present time.

However discouraging the attacks have been to educators, they undoubtedly will prove a boon to the educational program of the future. They have forced school executives and boards of education to take inventory and to justify the work they are doing. They have necessitated revisions in organization so that the programs can logically be defended. The opinion of many laymen that all subjects added to the curriculum in the last quarter of a century are mere falderal indicates superficial thinking of the most contemptuous type. It would be as logical for the educator to declare that the automobile, the telephone, the radio, and hard surfaced roads are mere flimflam because civilization formerly existed without them.

If the automobile of today were the touring car of twenty-five years ago with its high wheels, hard tires and mechanical weaknesses; if the telephone were the balky, party-exchange instrument of

1900; if the radio were the old ear-type code receiver of a decade ago, and if hard surfaced highways were the ancient dry weather dirt roads of the prewar period, we would all agree to do without them. Everyone approves of these scientific developments; yet improvements in education founded on precisely the same principle are judged on an entirely different basis. If the curriculums of our school systems had not been changed to meet present conditions, they would bear the same relationship to American education that the improvements we consider imperative to modern life bear to their crude beginnings.

Every school system has a different problem to solve because local social and economic conditions vary. Although the basic philosophy underlying all education is essentially the same, we must recognize that curriculums suitable to metropolitan New York would be ridiculous for agricultural Shiskok Center. Regardless of location, however, the subjects that have been under fire have been the cultural ones including art, music, speech and dramatics; the vocational and semivocational subjects like home economics and manual arts; the commercial subjects, such as journalism and printing, and the health activities including physical education, athletics and the health departments.

The schools of Aberdeen, S. D., have faced the attacks of the critics and have withstood the clamor for tax reduction without eliminating a single activity or subject because school authorities have adjusted every course to meet present requirements. In all cases hard work and careful reorganization have effectively answered the public challenge concerning utility and value. Some of the many changes that have been made to modernize courses are described in the following paragraphs.

The departments of journalism and printing, through reorganization of time and equipment schedules and through changes in course content affecting the immediate and ultimate aims of the work, have placed the production of the school paper on a thoroughly socialized and vocational basis. The semimonthly school paper which was printed by a commercial shop now appears weekly and the work is done entirely by pupils in the high school print shop. Weekly production in the school shop has made possible a cheaper rate to advertisers, with consequent additional revenue and increased circulation. Pupils in the department of journalism formerly received training only in the literary side of newspaper production. Now they receive more comprehensive training in the field of journalistic writing, plus practical experience in ad setting, make-up and mechanical production. This cooperation has a wholesome influence on both departments, and has resulted in increased enrollment and decreased unit costs of instruction.

Work offered in the commercial department was strictly vocational prior to 1932. A careful survey of the activities of graduates from the commercial department proved that during the period from 1929 to 1932 less than 1 per cent of the commercial department graduates had found employment in commercial work. The figures indicated that it was advisable to reorganize the courses, placing less emphasis upon the vocational aspects of the program. The requirements for graduation from the department were changed so that instead of two years of shorthand, two years of typewriting and one year of bookkeeping the course now includes one year of shorthand and one year of type-

The size of the print shop was increased in order to care for more pupils.

Above: One of the junior musical groups, a product of expansion. Right: The high school annual, a product of the print shop.

writing, followed by one semester of general office practice and application. This work may be supplemented by a one-semester course in commercial law and a one-year course in bookkeeping if the pupil desires them. In addition to the courses offered for commercial pupils, one year of nonvocational typewriting is offered as an elective course.

Under the new arrangement, pupils finishing the commercial course may enter any standard university or college without losing credits because of an excess of vocational subjects. More pupils of a better type are now taking the course for its general value, but the training is still extensive enough to give the fundamentals of commercial education to those wishing to take it for vocational purposes.

Home economics courses were formerly designed for the girl preparing for college or for the one with strictly vocational interests. Small rooms limited classes to a maximum of twenty-four pupils. The courses included the traditional cooking and sewing instruction, with little emphasis upon modern phases of home economics education. In 1930 a new home economics department was constructed to accommodate classes of thirty-five. The program was reorganized and for the traditional cooking and sewing classes were substituted courses in garment remodeling, family marketing, home nursing, balanced diets, home crafts, home beautification, clothing analysis, clothing and selection. In addition to the sequence of courses in the home economics field, a one-year course for girls who had not had home economics was offered. This new arrangement has doubled the department enrollment, has attracted a better type of pupil, and has consequently reduced the educational costs per pupil.

Prior to 1929 athletics were limited to competitive games for junior and senior high school first teams, which played out of town and accommodated only a limited number of boys. This plan

Study rooms in the high school have been increased in size in connection with the expansion program.

was expensive and did not help the boys that should be benefited by an athletic program. Limited finances forced a reorganization of the whole junior and senior high school program, which resulted in increased opportunities for boys to participate in well developed intramural programs. Men teachers were employed to handle the athletics as part of their extracurricular assignments. Whereas formerly the whole program cared for from fifty to seventy-five boys in each athletic season, the new one cares for more than three hundred. The program is not only more economical, but it benefits the boys that should profit from supervised athletic competition.

Music in the high school was confined to a select glee club of about 150 voices. The new program forced us to be less selective and to accommodate more children. It necessitated the organization of a second glee club. Under the new plan more than 250 children sing in the glee club. Exactly the same plan was followed in offering broader opportunities in band and orchestra work. Additional string classes and second orchestras give every pupil a chance to participate.

Teachers of mechanical drawing, architectural drafting and woodworking insisted for many years, as have special teachers in other departments, that a class of twenty was as large as could be competently handled. A close cost analysis of these departments revealed that the per pupil cost of instruction was about double the cost in the academic departments. This was a vulnerable point of attack for tax reducing enthusiasts.

Instructors were informed that a reorganization was necessary, so that costs would be more nearly in line with those of other departments. New shop arrangements and carefully planned routing and job sheets increased the loads in all of these classes to thirty-five pupils. The old course that required each pupil to construct certain pieces of furniture was revised. New courses were divided into units of instruction that placed added emphasis upon intelligent selection and use of materials in construction. In addition to the fundamental skills involved in tool operation and in the care and use of machinery, the type of instruction was determined by the philosophy that ultimately pupils are to be buyers and users of manufactured products of this type.

Exploratory and comprehension courses in tinsmithing, electrical work, plumbing, and automobile repair, operation and care have been retained in the vocational curriculums by virtue of a decided increase of per pupil costs.

The excessive cost of maintaining individual shops and equipment has been alleviated by the organization of a general shop set-up instituted according to a plan permitting the rotation of pupils to the various phases of work offered in this department. The allocating of pupils to the various units of instruction in general shop has made possible convenient and educationally advantageous handling of at least thirty pupils by one instructor during each class period.

The functioning of all industrial arts courses in the Aberdeen school system recognizes the fact that truly educational benefits are afforded by personal participation of the learner in significant activities of life. Honest labor is regarded as a dignified pursuit and as such is honored as important in character development. Instructional procedures employed in the courses stress intelligent use and consumption of those products with which our daily social and economic life is intimately concerned.

A Fallacy Behind a Method

We have been teaching facts and hoping they would be used. We have underestimated the importance of the discarding principle in thinking. We have spoken carelessly of educating for the New Deal, when what we must really do is to educate for a succession of new deals

By N. C. KEARNEY
Superintendent of Schools, Hancock, Minn.

A GREAT fallacy that is embodied in the American educational system has its source in the common assumption that wisdom and the ability to participate intelligently in the affairs of mankind result from learning. In reality the outcomes desirable for the individuals comprising an imperfect society must result from unlearning. To speak of an American educational system, it must be confessed, is to make a generality of a mass of independent civil entities that utilize the results of many sciences in their pedagogical efforts. These sciences have achieved a standard of scientific accuracy and dependability that is truly amazing when the intangible character of their subject matter is considered.

If there is any fallacious methodology in education, the greatest social waste resulting therefrom will be in that portion of the school population which is capable of the greatest and finest development. It seems imperative, therefore, that the philosophy of methodology be kept as free from error as possible. It must be remembered, of course, that intellectual capacity, or raw intelligence as it could be called, has a surprising hardiness that permits it to survive a great deal of neglect and mistreatment.

There are persons who go so far as to assert that formal schooling is unnecessary for the genius. They say the only things necessary are a stimulating environment and intellectual associates. Even if this were true, and like most startling statements it is true only to a degree, there would still be waste in time and effort on the part of those engaged in the educating profession. Certainly, then, there is inefficiency as a result of any straying in pedagogical aim.

The pupil in school knows little of all this in his undergraduate days. He is an organism yearning for experience and the realities of life. Educators strive scientifically to teach him fundamentals with gratifying success. More than this, much is accomplished in inculcating ideals and appreciations, in social and political theory and allied fields, but the failure in general habits of thought supersedes all this. One school of thinkers holds that all thought must be inquisitive, doubting, skeptical, agnostic or questioning as the case may be, but never should it be dogmatic, trusting, based on either faith or heresy. There is an element of reason in this claim. Those who advance it have seen that skepticism and doubt precede the fruition of a mature, well considered knowledge. The prescription, the inculcation of habits of skeptical interrogation, is too superficial and, if successfully achieved in an educational system, would lead to a shallowness and discursiveness that could scarcely merit a better adjective than flippant.

Scientists Have Evaded the Pitfall Successfully

My thesis is not that wisdom or its semblance can be achieved by anything so simple as skepticism. There is no short cut to that measured mental balance that speaks slowly and tolerantly from out the background of a rich and thoughtful experience. The wise man achieves his status, often without conscious knowledge of the process, by repeated learning and disillusionment or unlearning. The facts of the moment are met, tested tentatively in the light of a limited human understanding, and either accepted or discarded. If accepted, there then begins the process of delimiting, paring and disproving until little or none of the original lesson remains.

When we encounter something that is new to us, even if it is old to history, we assume that we have knowledge of the complete pattern of which the problem is a part, and we accept and place the new

knowledge with that assumption. Scientists and researchers attempt to evade this pitfall with great success in many cases. Descartes sensed the problem but started out with a similar assumption when he said, "I think. Therefore: I am," and seemed unconscious of the pattern whose validity he assumed. As we live we seek to synthesize our knowledge into a system that lacks obvious contradictions. This can be done by some persons with little effort, as they experience little and think less. For others, the task lends the interest and pleasure of adventure to an otherwise drab and material existence. The cultured tolerant persons in the latter group are the salt of an otherwise unsavored population.

One Example of a Phenomenon

Between these two groups and sometimes extending into them is a great mass of human beings in whom various degrees of sensitiveness account for more or less unhappiness and misery. Its members are the products of a school system that has stressed learning as a preparation for living. They have learned, for instance, that friendship is a beautiful and intimate relationship that should be fostered and cherished. They have never discovered how to unlearn without consuming the last bitter drop of the medicine of experience. They have an unfortunate experience with their friends and develop into skeptics and misanthropes. This is but one example of a phenomenon of which there are countless examples in the world of personalities about us.

The countryside at times seems full of busybodies who are trying to achieve success by keeping "busy as ants." Others strive painfully to reach an ideal of truthfulness that becomes as painful to those about them as it is embarrassing to the devotees themselves. It must not be assumed that the persons caught by this inability to unlearn and delimit their early lessons are lacking in intelligence. We have no evidence to prove that Einstein, born and raised in a primitive society, would have been other than a superior savage. Until education makes a definite effort to meet the situation, its inability to modify man's habits of thought will not be too evident.

There are things that education cannot do. There are things that it would be dangerous for it to do were it able. Education cannot create intelligence or character. It would be dangerous for it to set out to teach people what to think. There is some doubt of the possibility of teaching people how to think, but it would seem to be the duty of educators to supply the externals in such a manner that the individual will be encouraged to think if he has the capacity.

A better product more cheaply produced could be turned out of our schools if the school were the only agency that contributed to the ultimate man. It is the deluge of falsity and presumption to which he is exposed that complicates the task. From childhood on, the individual is exposed to all the "eternal verities" as they happen to be handed down for his race, caste, creed, family and nation. From school age on, he is the target for a barrage of procedures well designed to fixate the basic facts involved in various skills. The church and the school unite to indoctrinate him with ideas for "this" and against "that."

In every society are found religious and family traditions, customs, folkways, myths, colloquialisms and provincialisms, aversions and prejudices. Sometimes the systems of thought involved in these heritages are the result of illogical thinking and sometimes of logical thought based on fragmentary knowledge. Most of them are the result of a slow growth or evolution conceived by the interaction of the intelligence of man and the mysterious natural forces of the universe. None of these modes of thought is born of pure reason and most of them contain elements at odds with the realities as science discovers them. Customary methods of regarding everyday realities (the gold standard or international debts are good examples) predetermine the conclusions of most persons with little or no reference to actual conditions, predictable outcomes or statistical probabilities. The progress of human knowledge has always been discouraged by the inertia of the mass of tradition.

We Must Learn to "Unlearn"

The young man reared and educated in China has a different social heritage than the Anglo-Saxon or American. Young men in Minnesota think differently about many things than do those in New York or California. These variations cannot be accounted for as hereditary, nor are they sufficiently precise to classify them broadly as environmental. They are social heritages that must be unlearned continually as the race progresses. It is in the process of discarding rather than of accumulating that weakness lies. Too many things have been taught as unquestionable verities and we have no method of doubt but skepticism.

The school cannot teach persons how to unlearn in ten easy lessons. The process calls for an attitude of mind. It demands specially trained teachers who have been taught to eschew all forms of indoctrination and to distrust the unscientific portions of indigenous cultures. It needs less haste as well as more time. The cause of learning will be advanced when education is pictured not as a

rapid accumulation of facts and truths in a few short years, but rather as a lifelong practice of collecting, trying and tentative sifting.

Let us assume that a group of young persons inherits the concept of the penurious Scotchman. The majority will hold to that idea throughout life, but a minority more observant than the rest will find examples of Scotch generosity and thriftlessness and will conclude that the Scot is like anyone else. A small number will live to appreciate the suggestive force of this widespread idea on the Scot himself, and they will conclude that the concept is true through a sort of double inversion. Finally, an occasional person will learn to study the characteristics of each interesting individual, knowing that he may be penurious one day and generous the next, the whole complex fabric of his character being brought out by the forces playing on it at the moment. If this conclusion is typical, this last person may develop into a wise and learned man.

A historical or developmental method must be used in familiarizing the pupil with the knowledge of the day. In two respects this will differ from the historical method too generally used today. First, it will contain less indoctrination and chauvinism. Second, the blind alleys and the mistakes made by mankind as knowledge has developed will be more thoroughly explored than they are now. Scientific method takes account of failures as well as successes, and this practice outside the field of research will overcome many a superstition and prejudice in the everyday thinking of the average person.

Teachers of the physical sciences have made real progress in teaching developmentally and in providing opportunities for the appreciation of scientific method. Social science has not been so successful, partly because it is in that field that so much has to be unlearned. If time is a limiting factor, more time should be demanded and used. In any case, if we are to preserve education as the cornerstone of a democracy that restricts the few only to protect the many, if we are to teach people to live happily in an antagonistic world, we must strive to implant good habits of thought. We have been teaching facts and hoping blindly that they would be used. We have silently ignored the great mass of inherited misinformation and bias, assuming it to be malignant but unconquerable. We have underestimated the importance of the discarding principle in thinking. We have spoken carelessly of educating for the New Deal, when what we must do is to educate for a succession of new deals. Nothing is more static than the conception of a cross section of a movement. Too often, we have been preparing society for demagoguery, not statesmanship. We have substituted skepticism for criticism, and, for the most part, we have taught subsequences instead of consequences.

A Valuable Handbook

The California State Department of Education has recently published an interesting bulletin under the title "Handbook for Rural Parent-Teacher Activities and Relationships."

The bulletin is designed to be an authoritative presentation of accepted educational ideals with suggestions as to how a community may, through its parent-teacher association, translate these ideals into accomplishment for the welfare of its own children. It represents the cooperative effort of the California Congress of Parents and Teachers and the California State Department of Education to guide superintendents, supervisors, teachers and interested parents in extending the advantages of the parent-teacher movement.

Although the title suggests the usefulness of this handbook in rural areas, the simple, direct statements of modern educational philosophy, practice and problems, are equally applicable to urban parents and teachers.

Problems of public relations are of vital concern to everyone engaged in public education today. The development of ways and means to establish better understanding between home and school is a major responsibility of every school administrator. The widespread demand for this publication, which attempts to meet these problems, gives evidence of the need for the material incorporated in the handbook.

The various chapters give direct and practical answer to the questions so frequently asked by parents, "What is the school doing for my child?" "How is the school aiding in the development of personality?" "Upon what qualities of citizenship does modern education place emphasis?" "How do modern methods of teaching differ from those employed in the schools of my childhood?" An attempt has been made to show how each subject functions in life, how it is taught, how it contributes to the child's complete personal and social development.

Other problems more remote from those concerned immediately with the child's development but influencing the conditions under which it takes place, have not been neglected. The handbook contains chapters relating to environment, school support, the county library, rural recreation, school administration and supervision.

Many of the subjects presented are controversial. The presentations are in no way dogmatic. They represent accepted teaching techniques, existing financial conditions, the most enlightened point of view on the purposes and functions of public education. Too frequently the public has an inadequate knowledge of real conditions regarding the schools. An informed community can act as a bulwark of defense against the attacks of ignorant or selfish interests and through adequate, authentic information, can bring sympathetic understanding to the problems facing public education. It is such service that the "Handbook for Rural Parent-Teacher Activities and Relationships" should promote in California.

What Others Have to Say . . . about federal subsidies

PAUL F. VOELKER,
State Supt. of Public Instruction, Lansing, Mich.:

The hysteria of a time of stress frequently impels a wild grasping for external relief before reasonable attention is given to possibilities for internal self-help.

The break down of municipal, county and state revenue structures has sent local units of government to the federal government with pleas for assistance before any long-time constructive plan for rebuilding those structures has been offered. Thus the federal government has been forced to assume the welfare burden of the nation, and thus has grown the attempt from all sections of the United States to secure federal aid for the public schools.

What Is an Emergency?

So long as we have a democratic form of government, it is illogical to expect the federal authority to support and administer functions of the units of local government except in emergency situations. An emergency cannot be said actually to exist until those local units have clearly demonstrated their complete incapacity to function without aid.

A state has no right to expect federal aid for its public schools until it has exhausted its own resources and made some attempt in its own right to equalize educational opportunity through the economy and efficiency of a reorganized administrative structure. Merely to admit a collapse is insufficient evidence of an emergency. Only those states which have courageously and honestly attempted to solve their own problems, which have redistributed their own revenues, and which have a forward-looking plan for self-help, have any claim to federal relief.

Federal support of any activity inevitably involves federal control. Federal control of schools is admitted on every hand to be objectionable. To request "federal aid without federal control" naïvely ignores the case history of other federally supported activities. The inflexible centrally directed administration of the PWA, CWA, FERA, and even of present federal educational funds supplies strong evidence of the impossibility of federal aid without also having federal control.

The evils of federal control, however, may be acceptable in emergency situations. A minimum of friction would develop in such instances if the various state educational authorities were utilized as the agents of administration.

There is a way, however, for the federal government to offer school relief and at the same time make a direct contribution to the public works program. Subsidization of specific projects as a means of encouraging certain desirable social reforms has long been regarded as a federal function. At the same time, the admittedly desirable development of larger units of school administration has been hampered by lack of capital for physical plant improvement and by lack of tangible incentive to overcome petty and selfish political tradition.

A federal subsidy for the building of school plants in certain centers of natural sociological development would be as effective a contribution to work relief as the building of unneeded highways. Aid in this form would release local funds for ordinary school operation. Further, federal assistance of this kind would contribute directly to the building of local governmental units which would eventually become self-sufficient. Such a program would effect a much needed correlation between educational administration and social planning.

DEAN WILLIS L. UHL,
University of Washington:

I favor federal support and federal influence in public education, always, however, with safeguards about local difficulties and local responsibilities. States that are far advanced in their educational facilities should probably be given less attention in this respect than states that are low in educational status.

The advanced states might, however, have great needs for such a subsidy and I think that in most cases they, as well as the other states, could be given fairly complete responsibility for the wise use of such funds. Safeguards are believed to be necessary in the distribution of state funds to various localities in the state, and it is my opinion that somewhat flexible safeguards of federal subsidies would also be necessary.

A formula representing the needs should be considered in the distribution of such funds. In my opinion funds could be given with no strings attached to our state department and still used to good advantage.

There are localities in this state in which the public has been kept well informed and others in which it has not keen kept well informed. I think financial aid to our state would be used in part for the better informing of certain localities, and as a consequence certain so-called new subjects would be given a much better place in the curriculum than they now have in some localities.

The social cultural status of many states in the Union is at present so low that their influence upon national policies, if accepted on the basis of a vote by states, would be disastrous to almost all the other states. Some of the states that I have in mind are in New England; others are in the South. Certain states have developed educational subjects which are, I believe, better than the nation as a whole could have developed.

PROF. FRED C. AYER,
University of Texas:

Federal aid is necessary and desirable. It should not be given without some guarantee of desirable state cooperation. The basis of the grant should be a formula based in part on broad needs but with sufficient per capita basis to secure political support. The form of aid should attempt to remove inadequacies of present organization, but I consider the type of organization to be secondary to immediate needs.

Federal aid should be supplemented by enriched school publicity. Both are greatly needed.

Certainly the present decentralized system of education is worth preserving. State control is essential to local support. Under complete federal control there would be grave danger of reducing the entire educational program. Federal aid can underwrite favorable programs of state controlled education, advancing enough financial aid to guarantee acceptance and local support. Texas can finance a satisfactory program of education, but it seems impossible to secure the necessary legislation.

Teaching as Guidance—A Proposed Plan for the High School

By PERCY E. DAVIDSON
School of Education, Stanford University

The one big obstacle to improvement in the school situation today is neglect of the pupil by administrators, supervisors and teachers. These groups continue to focus their attention upon everything except the pupil's inner growth and practical adjustments. This is the historical fixation of which the school personnel at large seems unable to rid itself

THERE are two opposing positions with respect to the rôle of guidance. On the one hand there is the doctrine that guidance exists for the purpose of helping young people find and adjust themselves in relation to existing educational offerings as these are provided by our going institutional arrangements.

The supposition seems to be that the educational situation has become a labyrinth within which the pupil must inevitably be lost without the assistance of a competent guide. Let us call this the cicerone theory of guidance. The analogy that comes to mind is the situation of the bewildered tourist in a strange land who is in need of the guidance of one familiar with its scenes and routes if he is to find the things he ought to see and discover the most economical ways of approaching them.

Guidance according to this view is a practical matter. It is not primarily concerned with analysis or criticism of school organization, curriculum making or the practice of teaching. These things belong to theorists, supervisors and teachers. Guidance leaves all this aside and confines its efforts to making use of what exists.

Constructive Theory of Guidance

At the other extreme is a view of guidance that identifies it with a study of the educative process itself. It cuts down through all the formal arrangements of schooling to its whys and wherefores. It consists of evaluating, appraising and criticizing school arrangements, all its facilities and techniques, for the purpose of discovering just what should and can be done to make them of the greatest possible use in the practical and cultural development of the young. Let us call this the critical or constructive theory of guidance. The first theory conceives of guidance as fitting the pupil into the existing scheme of things, the second seems more concerned with fitting the structure to the needs of the pupil.

The least inconvenient method of meeting an issue of this kind is to straddle it and to agree with both sides. This is the alternative chosen here. It is held that the cicerone theory of formal guidance is essentially correct. Guidance came into being as vocational guidance, because the complex and unfamiliar labor market, clearly beyond the ability of young people to know and understand it, has to be interpreted to them if they are to find their way into it profitably. The rôle of the cicerone remains the essential reason for guidance as a specialized educational occupation. To stretch this function into that of a broad philosophical or critical examination of the educational process as a whole is hopelessly confusing. It robs guidance of its social claim as a practical need and trenches upon other types of educational specialization.

While this may be urged as the central business of guidance, it need not preclude an interest in school reform. The guidance movement represents a growing point in education, for the simple reason that it is primarily concerned with individuals and their needs. In the nature of the case it must look upon existing arrangements in schooling as ways and means, as mere instrumentalities for the furtherance of the practical and cultural development of individuals.

Since existing arrangements anywhere in society

A FUNCTIONAL ORGANIZATION OF THE HIGH SCHOOL

(The purpose of the high school is to guide individual youth through four years of growth)

POLICY — PRINCIPAL AND FACULTY FORMULATE THE GENERAL FUNCTIONAL POLICIES OF THE SCHOOL

COORDINATION — SUPERVISORY COMMITTEE OF THE FACULTY (PRINCIPAL, CHAIRMEN OF FUNCTIONAL COMMITTEES, AND COUNSELORS) COORDINATE AND IMPLEMENT THE WORK OF THE SEVERAL FUNCTIONAL COMMITTEES

TEACHING AS GUIDANCE THROUGH FUNCTIONAL COMMITTEES OF THE FACULTY

I. HEALTH AND PHYSICAL EDUCATION: SPORTS

1. Keeps abreast of research and discussion; formulates and recommends policy for this phase of the school's work.
2. Surveys continuously the general health conditions and physical activities of the local region.
3. Examines the elementary school record of each student; makes its own examination; keeps notes on the health and physical growth of each student throughout the four years.
4. Counsels and recommends for each student in the light of the ascertained conditions.
5. Assembles and coordinates all the resources of the school and the community in behalf of this phase of the school's work.
6. Directs and conducts the training practices of the school in this phase of the school's work; has full charge of the athletic activities of the school.
7. Appraises and measures(?) the short- and long-time results of the school's program in behalf of health and physical development.

II. VOCATION

1. See under Health, etc.
2. Surveys continuously the probably markets for the labor service of this school population.
3. Examines the elementary school record of each student; makes its own analysis and estimate of his occupational interests and capacities; keeps notes on changes and growth in these matters.
4. Counsels and recommends for each student in the light of ascertained conditions; lays out each semester's program in consultation with student and parents.
5. See under Health, etc.
6. Directs and conducts the training practices of the school in this phase of its work.
7. Appraises and measures(?) the results of the school's efforts in behalf of the occupational success of its graduates.

III. PERSONAL AND FAMILY ECONOMY: CONSUMERS' PROBLEMS: MARRIAGE AND FAMILY LIFE

1. See under Health, etc.
2. Surveys continuously the trends and circumstances affecting personal and family economy, marriage and successful family living in the local region.
3. Considers the elementary-school record of each student, his family situation, his capacity for self-care, wise expenditure; the relative wholesomeness of his ideals and attitudes toward intimate personal relationships.
4. Counsels each student as occasion requires and advises with regard to his programs.
5. See under Health, etc.
6. See under Vocation.
7. Appraises the school's efforts in behalf of wise expenditure and consumption, successful marriage and wholesome family life.

IV. CITIZENSHIP

1. See under Health, etc.
2. Surveys continuously the civic trends and needs of the local region and the nation.
3. Considers the elementary-school record of each student; makes its own analysis of his civic interests, attitudes, and habits; keeps notes on his development as a citizen.
4. Counsels each student as occasion requires; advises with respect to his programs and activities, including his extra-curricular and community activities.
5. See under Health, etc.
6. Directs, oversees, and evaluates the training practices of the school in their civic bearings, including the self-government, extra-curricular, and community relationships.
7. Appraises and measures(?) the school's efforts in behalf of effective citizenship.

V. PERSONAL CULTURE AND CHARACTER: LEISURE TIME LIVING

1. See under Health, etc.
2. Surveys continuously the leisure-time and cultural trends and needs of the local region.
3. Considers the elementary-school record of each student as to his recreations, leisure-time activities, cultural interests and understandings, his code and habits; supplements with its own analysis; keeps notes on his cultural and moral growth.
4. Counsels each student as occasion requires; advises with respect to his programs, offers suggestions as to a profitable and enjoyable use of leisure time in out-of-school hours.
5. Assembles and coordinates all the resources of the school in this phase of its work; correlates this with the cultural and elevating opportunities supplied by the community.
6. See under Vocation.
7. Appraises and measures(?) the school's efforts in behalf of cultural-moral development and the improvement of public taste.

DISTRIBUTION OF TEACHERS ON COMMITTEES USING THEIR SUBJECTS IN BEHALF OF DEVELOPMENTAL AND SOCIAL VALUES

Physical education, hygiene, sports	Physical sciences	Shops	Mathematics	Household arts; wise consumption; family living	Biological sciences	Social studies, history	English speech and writing	Foreign languages	Music, art, dramatics, literature, biography, travel, free reading

Explanation. - To avoid a confusing display, the distribution is illustrated with five subjects only. The reader will make his own application of the idea. Curricular units -- "courses" and "activities" -- will take forms dictated by the findings of the several committees with respect to the social purposes and developmental needs discovered in their several areas. These units will be coordinated and scheduled by the Supervisory Committee. It is assumed that organization as such exists only for the facilitation of purposes. "Subjects" are regarded strictly as means to the actualization of realistic educational values to be rigorously scrutinized for their relations to these values. The five committees are a concession to the necessary division of labor within a considerable group of teachers. In small schools the faculty as "committee of the whole" might well conduct all the work suggested for the several committees.

are always makeshift adjustments in constant process of revision with reference to unsatisfied needs, it goes without saying that the existing set-up in education cannot be taken for granted. It is bound to be inadequate and wasteful in part, and the one way of knowing how adequate it is is constantly to measure its effects against the needs and accomplishments of individuals. The one big obstacle to improvement in the school situation today is neglect of the individual pupil by administrators, supervisors and teachers.

In spite of our better theory, which harps upon the necessity of individualizing education, these groups continue to focus their attention upon administrative and supervisory blanket schemes, upon paper courses and outlines of study, upon mass schemes of classification, promotion, measuring, upon highly specialized subject matter, textbooks and materials, upon everything, indeed, except the individual's inner growth and practical adjustments. This is the historical fixation of which the school personnel at large seems unable to rid itself.

It is at this point that the members of the guidance personnel are of so great consequence if they but live up to their avowed interest in the individual. One would expect them to be on the firing line with respect to the reform of the structure of education, pushing against administrative, supervisory and teacher preoccupation with the paraphernalia of education, striving to develop a revamped, fluid and experimental program fitted to the needs of individuals. They should be reforming and constructive in spirit, in step with every effort being made among progressive groups for the freeing of the individual from the red tape and routine of the traditional structure in public education.

Guidance Expert Fills Important Rôle

Is this the position that the guidance movement holds in the current situation? Apparently not. Evidently the members of the guidance personnel have been too well satisfied with the cicerone theory of their rôle to take seriously the element of truth that lies in the statements of those who would stress its critical and evaluating function.

One can excuse a school administrator for being lost in the practical perplexities of his office, since institutional ways and means are what constantly confront him. There is no such excuse for the guidance expert, for his perpetual object of interest and attention is the individual pupil in process of adjustment. He is at the very heart of the educational situation. How can he know how to guide in this subtle area if he is concerned merely with fitting young people into an existing historical structure? Unavoidably he must measure this structure against the unique needs and necessities of each individual, and this requires all he can muster in the way of psychologic and social wisdom.

The contention next to be made will meet with resistance. It is frankly to the effect that the expansion of vocational guidance to include educational guidance was a mixed blessing. The two things do not run on all fours. They are different in kind and each highly complicated in itself. Vocational guidance is far and away the more justifiable specialization. The other is in part a hindrance rather than a help.

Vocational Versus *Educational Guidance*

The proper conduct of vocational guidance requires an exacting proficiency in three lines of study, at least. There is the study of vocational interests, aptitudes and occupational psychology at large, as one primary constituent. Another requirement is a detailed and up-to-the-minute understanding of the fluctuating labor market and its sociologic implications. There is, in addition, the need of a first-hand acquaintance with ever changing programs of vocational training.

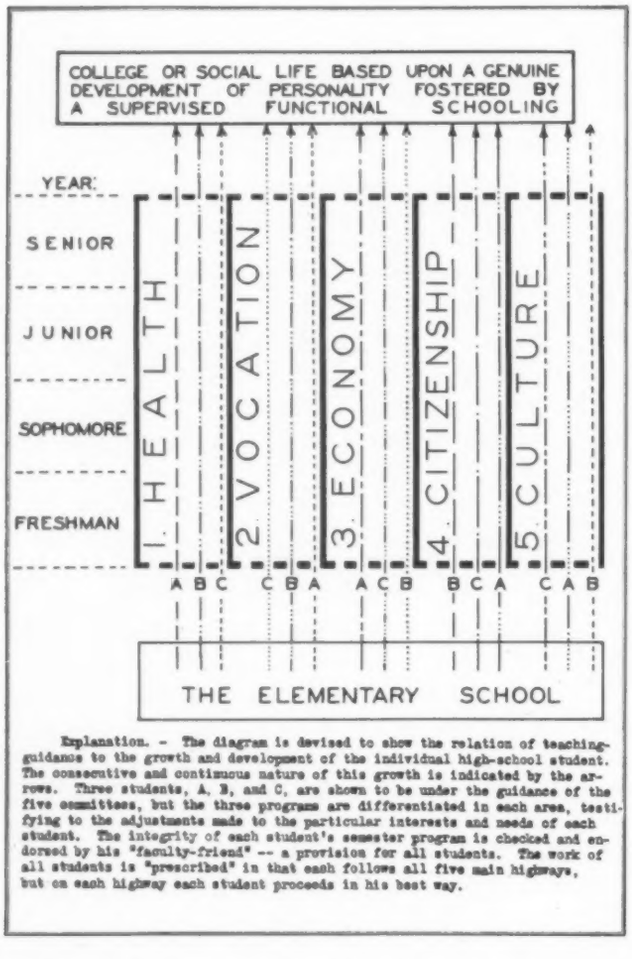
That any one person can command this field of study and at the same time know intimately the corresponding situation on the side of cultural education is most unlikely, and the effort to do this must inevitably lead to superficiality.

Educational guidance is quite another matter. Its objectives are not so much pecuniary or utilitarian as they are ethical and cultural. The person who conducts it wisely must be grounded in the wisdom of a good kind of living rather than in the techniques and conditions of making a living in the practical sense. His expertness has to do broadly with the field of health, citizenship, culture and intimate personal relationships. His objects of study are the human values. He cannot possibly be a specialist as the vocational guide is, but must be a broad minded and generous lover of the values of living for their own sake. He must know the psychology of personality on its cultural and character sides and must concern himself with those social and educational agencies that affect these for good or ill. His must be a mellow and humane mind, capable of distinguishing between the school paraphernalia and the values they are meant to foster, and he must be sensitive to the manifestations of these values in growing youth. This is to say that he must be an expert child psychologist and a capable critic of the moving cultural situation. His task is as exacting as any human task can be, for it demands requirements that are rarely found in combination.

Vocational and educational guidance are on a separate footing in one other important respect.

The perplexities and inconstancies of the labor market are part and parcel of the industrial order. The confusions and perplexities of the school system are largely of our own making. They are in great part what we permit them to be—vastly more numerous than they need be if we would but liberate our minds sufficiently from outworn forms to criticize and simplify the existing educational structure.

If, instead of conceiving of education in terms of courses, curriculums, schedules, grades, promotions, school types and all the rest of our institutional machinery, we should reduce it to its essentials, which is the guidance of individual pupils in their practical and cultural adjustments, formal educational guidance might become unnecessary. For, as anyone will admit who pays more than lip service to our best current doctrine, teaching is essentially guidance and nothing else.



Explanation. - The diagram is devised to show the relation of teaching-guidance to the growth and development of the individual high-school student. The consecutive and continuous nature of this growth is indicated by the arrows. Three students, A, B, and C, are shown to be under the guidance of the five committees, but the three programs are differentiated in each area, testifying to the adjustments made to the particular interests and needs of each student. The integrity of each student's semester program is checked and endorsed by his "faculty-friend" -- a provision for all students. The work of all students is "prescribed" in that each follows all five main highways, but on each highway each student proceeds in his best way.

Guidance experts relieve teachers of their central responsibility when they take to themselves the guidance function in education and so encourage teachers to continue in their obsolete habit of making teaching consist of the mass drilling of skills and the imparting of stereotyped knowledge in place of a sensitive and experimental treatment of the developing experience of individual youth. This statement applies equally to supervisors, of course, and to principals and superintendents in their supervisory functions in the smaller schools.

Such a statement sounds harsh and impractical. It is not meant to be anything but a frank facing of facts. Let us consider the high school situation for a moment. It will be admitted that guidance there consists largely of distributing individuals upon courses. But suppose we admit, as we must, that courses as so many doses of knowledge are no longer tolerable. Education today is conceived as a consecutive development of the individual along a number of distinguishable lines of practical and cultural growth, represented, let us say, by the seven cardinal principles.

Suppose each teaching faculty in each one of these general aspects of the school task should make itself into a committee of the whole for the purpose of discovering, from a first-hand examination of the school population under its direction, what these young people severally need from it for their social and cultural adjustments on the side of the task represented by this faculty. Suppose they should then organize their resources in the light of their findings and proceed to deal with each individual as he is and not with some stereotyped or inherited notion of what such and such a course should be in the abstract.

A Big Opportunity

What would there be for outside guidance to do in such a case? There would be a small number of the school's departments for the reason that there is a relatively small number of major lines of adjustment. Each of these divisions or departments would be responsible for guidance, for the excellent reason that its teaching personnel knows, or should know, more about the personal and social values to be realized in its area than any outsiders.

Principals and supervisory officers governed by the same developmental philosophy of schooling would have for their principal task the integrating of the school's divisions in the interest of a unified whole for the purpose in mind. Doubtless in the largest schools a certain number of guidance officers would still be needed to take care of misfits and troublesome cases and to assist the teaching groups in their individualizing programs, but they would obviously be subsidiary in their relationships with guidance and certainly would not be a small group, distinct from others, carrying the entire guidance load.

Obviously, we are here urging again that the great opportunity of the guidance personnel is in the direction of assisting in a reshaping of the school in its relation to the needs of individuals.

The Budget—Its Proper Place in Administrative Control

By ALFRED D. SIMPSON
Assistant Commissioner for Finance,
New York State Department

Budget time is here again for school executives in all sections of the country. What to do with the budget and how to use it in effecting wise control are points emphasized by Mr. Simpson in treating this timely subject. His first article appeared in June and this concludes the series

IN THE later phases of this discussion there may seem to be a tendency to overemphasize the control feature of the budget, even perhaps to the extent of hanging a millstone about the administrator's neck.[1] But this is not the intention. The reader will recall that previous mention has been made of the fact that it is virtually impossible to make a perfect budget. This still stands.

Yet some readers would be surprised at the possibilities of living within—departmentally speaking—the detailed line-item budget and appropriation, however perfect or imperfect it may be. Nevertheless, there is no occasion to plead for a budget rigidity that serves no good purpose, particularly in the matter of itemization. There should be orderliness, however, without adhering to rigidity. The will of the appropriating authority and the sacredness of the spending contract should be maintained. Planning and the controlling agency's concept of educational need should be such that the total sum authorized by the appropriating act will be made the absolute limit of expenditure.

A control beyond the total sum, however, is important for administrative purpose. This control can be accomplished by making the budget items, which should be arranged according to standard accounting classifications, govern all expenditures. This type of detailed control can be made to serve the demands of stewardship, orderliness and good administration without rendering impossible any adjustments that may be necessary as a result of unforeseen circumstances.

While it is well-nigh impossible to create a perfect budget, provision can be made for revision and transfer of items or parts of itemized estimates without increasing the original total. There are several ways of making revisions. I should like to emphasize, however, that the ancient and dishonorable budget devise—the incidentals item—is not the proper method. Provision for incidentals or for miscellaneous pigeonholes in the budget simply indicates lack of planning. The chief reasons for transfer of items and for budget revision are unforeseen conditions.

The control of revision should rest with the board of education upon the recommendation of the chief administrative officer. It may best be accomplished by (1) the formal vote of transfer, debiting and crediting two or more items, or (2) the use of the allotment system.

A Good Method for Small Systems

In most school systems, particularly the smaller ones, the formal vote of transfer by the board is preferable. A transfer among budget items should be made only upon presentation of evidence showing the need for such a transfer. There should also be presented a financial statement showing expenditures to date, the estimated expenses for the balance of the fiscal year and the possibility of curtailing the offsetting item without interfering with its objective. Some items of school expenditure are materialistic and largely external to the educational process; others are internal in purpose or closely related to the work of the classroom. Fuel is illustrative of the former group while books are an example of the latter. In general, it is more defensible educationally to revise budgets by transferring from externals to internals. If a certain

[1] The first part of this article appeared in the June number of The NATION'S SCHOOLS.

transfer has been voted the operating budget should be formally revised and the new budget items should be incorporated into the accounts in order to provide a new basis for administrative control.

The type of transfer under consideration has for its purpose flexibility. It provides an allowance for the error factor in budgetary planning. Such a transfer, however, is not a financing device and has nothing to do with the funding of the appropriation. Transfers among budget items for purposes of flexibility should, for the most part, be restricted to the current expense group. Debt service budgeting should be susceptible to almost exact planning, thus leaving very little occasion for any adjustment.

Laws Frequently Oppose Capital Outlay Transfer

In capital outlay budgeting distinction should be made between those positions to be financed through current funds and those carried on by means of bond issues or some other form of permanent indebtedness. Capital outlay items that are financed through current funds are open to reasonable transfer, provided there is legal sanction, just as items of current expenses are open to transfer. If capital outlay financing is conducted through the creation of debt there is generally a legal as well as a pragmatic reason against transfer flexibility. Laws are frequently against it. In most school systems bonded debt is created to finance capital outlay through the expression of the will of the voters of the district. It represents a distinct charge upon the school board, as the funds are to all intent and purpose earmarked. Debt has been created for the special purpose of financing an activity other than those supported through the usual means. The capital outlay purpose so determined should not be thwarted by the board through the transfer of budgeted items even though all the debt creating income is not needed for a given capital outlay. In fact, bond issue funds should be segregated from current revenue and there should be a separate accounting of them.

If it is legal, however, the board is justified in borrowing temporarily from bond accounts for purely fiscal purposes, such as to provide funds required to finance the current budget pending tax or other receipts. In such a case the purpose would be fiscal as distinguished from budgetary. Purely budget transfers from items financed through debt creation should not be made. Unexpended balances in such budget items may be used to defray indebtedness at the discretion of the creating authority.

The other device mentioned in connection with budget revision is the allotment system. This is not in common use, but its popularity will probably increase in coming years. The allotment system is more than merely a device for budget revision—it is in itself a system of fiscal administration. The allotment system is particularly adapted to use with lump sum appropriations where a standardized accounting plan is used. In common application it involves the periodical preparation, monthly or quarterly, of allotment requests, arranged according to a standard accounting classification. Such an allotment request serves as a petition for authority to spend in certain amounts and directions during the allotment period under designated classifications.

In a school district the allotment request should be presented by the administrative officer and approved by the board of education. When the allotment has been approved it should be incorporated into the accounts and should become the controlling force over expenditures during the period. In subsequent months or quarters a similar allotment procedure should be followed.

In the larger school systems where financing is more complex the allotment plan has many advantages. It amounts virtually to periodic budgeting. It provides means for a close but not an impeding budgetary control. In cases where the school board is required to give close supervision to all expenditures, thereby limiting the amount of time it is able to devote to educational policy, the allotment plan will be found helpful. The plan is particularly useful where lump sum appropriations for schools are made and where fiscal control rests with an agency that is entirely separate from the board of education.

Allotment Plan Has Many Advantages

The allotment plan, therefore, provides a good means for the periodical revision and adjustment of budget items, especially in large districts. It offers a means of avoiding the ill effects of budget rigidity, and at the same time it conserves the desirable elements of good budget control.

A reasonable degree of flexibility can be secured in the use of the budget as an instrument of administrative control either through the allotment plan or the device of formal budget transfer previously mentioned. This discussion of flexibility in budget administration should make apparent the interlocking nature of budgeting and accounting. At the same time it should allay any fears that the use of budget items as real controls over expenditures and accounting will impede good administrative stewardship.

The problem of recording the encumbrance of the appropriation is closely allied to the interlocking nature of budget administration and accounting. Encumbrance is a phase of accounting—not

of budgeting—and a brief reference to its importance in good budgetary control is important at this point. Encumbrance accounting consists merely of recording each commitment that is made against an appropriation or an item contained in the operating budget. Any purchase, work order or contract, for example, mortgages or commits on the appropriation or the budget item. To record this committal, in exact or estimated amount, is to practice encumbrance accounting. Unless the administrator knows fairly accurately how much of a budget item has been committed he is not in a position to make further contracts or work orders. Encumbrance accounting tells him the status of his budget items at all times.

When Encumbrance Accounting Is Necessary

Many administrators decry encumbrance accounting as a needless waste of time. That its elaborate introduction in the small single-man system would be unimportant will be freely admitted. As the school system becomes larger and more complex, however, this accounting device takes on added importance. When I was a superintendent in a small town I frequently referred to the bill file to determine how much of the textbook appropriation had already been used. This act of refering to the bill file was actually encumbrance accounting, but of an unwieldy sort. If I had guessed at the balance I would have been performing a guesswork type of encumbrance accounting. Such processes will work in some situations, but to rely on them in a large and complex school system would be inefficient. Each superintendent must determine for himself the point at which orderly encumbrance accounting should be inaugurated.

Let us now consider the monthly or periodic financial statement as one of the instrumentalities in administrative control. De Young in his study, "Budgetary Practices in Public School Administration," found that in 91 per cent of the more than 800 school systems studied the board is informed periodically regarding the current condition of funds. In only 77 per cent of the cases, however, was this information given in written reports. In only about 79 per cent of the systems having financial statements were these reports rendered as often as monthly. In the other cases less frequent reports were the rule. While it is gratifying that as many as 91 per cent of these school systems have some kind of a periodic financial report, there is room for improvement in this phase of educational administration.

A good budget and a good accounting system render the making of a meaningful financial report a relatively simple matter at every board meeting. Such a statement need not be presented in the form of a balance sheet. It should include, however, information such as the following for each budget item: the amount originally appropriated; additions and deductions to date (transfers); the amount of the operating budget item to date; the amount expended during the report period; the unexpected balance at the close of the report period; the unliquidated obligations (encumbrances), and the unencumbered balance at the close of the report period. This report should also include statements regarding the condition of the treasury, the bank balances and the status of any special funds.

The presentation of financial statements at board meetings may be supplemented to good advantage with special reports regarding matters of prime importance to the financing of education in the district. This type of financial report gives the superintendent an opportunity to account for his administrative responsibility and gives the board a further means of assuring its stewardship. It is difficult to see how such a statement may be omitted if action is contemplated at the meeting regarding budget adjustments or if special matters of finance are to be discussed. Every school board should demand a periodic financial report, and every administrator should insist on the opportunity to render such a report. It constitutes a further means of administrative control.

A Serious Problem for Large Systems

One phase of administrative control that is found in every large system is the problem of distributing resources among schools and other organization units in the system. Chance, tradition and many other factors play a part in making it impossible to keep all schools, even those of the same type, on a level plan of total or unit costs. The control of expenditure distribution among the various units requires the serious consideration of every administrator and board. Regulation in this connection should be free from the obnoxious and irritating effects that often accompany some types of control administration.

There is probably no better way to secure the desired results in this respect than through the practice of budgeting by schools and organization units. This applies to the initial phases of budget construction as well as to budget administration. Not only will a better budget be devised by proceeding first from the several organization units, but also by this procedure the superintendent will enlist the active interest and develop the financial consciousness of various school heads and directors of organization units.

When the budget has been prepared through unit participation it cannot be presented and

adopted upon such a basis. If the board of education is fiscally independent this question will not matter seriously. If the board is fiscally dependent a consolidated budget for the system is generally considered the more desirable basis of presentation to the appropriating authority. I would not recommend that the appropriating enactment in either case be arranged by school and organization units. After appropriation, however, there is much administrative advantage in arranging the operating budget by these units.

Most Superintendents Are Good Business Men

Since the schools and other units have contributed from the beginning to budget construction they should now have the opportunity under scientifically planned accounting and business procedures to participate in budget administration. Through such a plan the chief administrator will find that his budget is the best possible instrument of control insofar as all phases of business administration are concerned. He will also find that in the long run annoyances are minimized and a greater degree of partnership is secured. By no means least important will be the realization of an improved administrative relationship in purely educational realms as a result of the smoothing of potentially disturbing business channels. This is one of the main values to be achieved throughout budget administration. Its use as a criterion of procedure enhances the meanship or instrumentality of the budget.

Much depends on the administrative agent, regardless of the ways in which the budget may be ordered or utilized as an instrument of business administration. While the personal equation can never be erased, this is not the real question. Some persons will always be poor or at best mediocre in budgetary or other phases of business administration, but this is not the general rule. Most school superintendents are good business executives—as good as the general run of individuals. The head of a large firm that specializes in accounting and business organization methods in municipalities recently told a school superintendent that in all the cities where his organization had worked the best management was invariably found in the school departments.

The favorite notion of a certain type of critics that school executives are poor business men probably has no practical foundation, and most certainly it is not founded on scientific evidence. There can be no such thing as special talent applicable to such a complex field as school business administration. The problem of efficiency in school business administration consists chiefly of application, personal ability, knowledge, a well planned and well organized system and orderly procedure, plus one other important element—a clearly and properly designated authority.

Without equivocation I wish to be dogmatic in this respect. Executive authority for the administration of the budget should rest squarely with the superintendent of schools. This officer should be held responsible to the board of education. There is room for only one chief executive in any enterprise. To provide otherwise is to entangle and encumber administration and to make easy the shifting of responsibility. The budgeting process is considered as a means—the means to an efficient school system designed for the education of boys and girls. To give a single authority the responsibility for education and to another person the responsibility for the means makes instrumentality the end. This is the trouble with dual administrative systems.

The obligation is mutual between the board and the superintendent, however, if it is desired to secure clear-cut administrative responsibility. The board must wish to make a clear demarcation of executive authority and to adhere to its policy. The superintendent must desire and must accept this authority and live up to his responsibility. Failure is often as much the fault of one party as the other.

Board Often Does Not Claim Its Rights

If the board is fiscally independent it is responsible for enacting the appropriation and is accountable to the people. In situations of fiscal dependency the board has a responsibility to other agents of the people. Such fiscal dependency may absolve the board from a responsibility of niggardly support but after it has received its appropriation it still has the responsibility of control, except in rare instances. Often, even under fiscal dependency, the board does not claim or accept the power and rights that the basic law gives it.

The superintendent should be fully cognizant of his jurisdiction and tenacious of his prerogative. A clearly indicated policy is his right. Good budgeting helps to clarify financial policy. The appropriating act helps to demark the line between policy making and execution. This is one reason for emphasizing the appropriation and the operating budget. Board regulations governing budgetary procedure will also serve further to clarify the bounds of executive responsibility. Within the limits of varying legal requirements and subject to essential official regulations, the executive authority properly includes the custodianship of school funds, the incurring of liabilities, the auditing of current bills, the drawing of warrants and payment of claims, accounting and many other

functions of business and financial administration.

In every situation there will, of course, be found many legal provisions regulating the scope of this executive authority and their variations in many cases owing to fundamental differences in governmental framework render impossible any specific exposition within the limits of this discussion. Laws must in all cases be carefully observed. Whether or not the law is fully attuned to progressive practices, it is possible to realize marked progress towards well defined and discriminating executive authority in the hands of the administrator as contrasted to the policy making and general control functions of the responsible board of education. A definite and comprehensive executive authority must be placed in the hands of the chosen administrator if it is really desired that the budget be used as an instrument of administrative control.

This situation is probably more likely to be found in the large school system than in the small one. Recognition of this fact constitutes a challenge in the organization of administrative units, particularly in rural areas, and in making provision to assure a professional administration of schools along business as well as educational lines. While good budgeting and good budget administration likewise are more likely to be found in large school districts than in small ones, steady improvement is being made in small districts. The remedy of a few conditions of organization, the enlargement of districts through consolidation, and the provision of a definite executive authority in educational administration will favorably affect the entire field of budgeting and school finance in rural areas. This in turn will improve the whole tone of budgeting and financial administration throughout the school systems of the country.

School Budgets Are Improving

In discussing this important subject, "The Budget as an Instrument of Administrative Control," I have tried to adhere closely to budget utilization as a means, in other words, to the concept of instrumentality in administration. What to do with the budget, how to use it in effecting wise control, have been the chief concern. No attempt has been made to consider what the budget should be, how it should be constructed or the elements of the good budget.

Noticeable progress has been made in the past decade in the quality of school budgets. De Young concluded in 1932 after checking his data with similar data gathered by Twente in 1921 that the 1932 conditions "reveal considerable progress in the technique of budgeting" and that "the budget reform movement . . . is making rapid strides toward efficiency in the public schools." My observations, based on experience in the East, agree with De Young's. In New York budgeting and budgetary administration are not only receiving the close attention of superintendents and boards, but they are also showing the results of scientific application. This is especially true in rural areas where the central rural school district is being promoted.

The important thing to keep in mind is to make the budget implement as good as possible and then to make superlative use of this tool. It is important to construct good budgets and to make them as variables progressively approach the perfect limit, but it is equally important to use budgets wisely as instruments in administrative control. The result will be a better school and a more perfect agent of society for the improvement of individual and social welfare. A liaison is needed between the public purse and the public school, between the social income and the social purpose. The budget, considered as an instrumentality and thus employed, provides this liaison.

Home Economics as a Vocation

In preparing for home economics as a vocation it would be well to give prevocational courses consisting of subjects listed under general education as a background, in the opinion of William J. Bogan, superintendent of schools, Chicago. This background is especially necessary for any group headed for specialization in later years.

Specialization must come sooner or later in the life of that pupil who wishes to adopt home economics or any of its phases as a vocation. Specialization means that unusual energy and time must be devoted to the subjects necessary in the vocational course. Most of this work will be confined to large schools in large cities where the demand from the pupils makes profitable the organization of classes and where the demand from society is sufficient to utilize the student product.

There should be a variety of these courses, but in general they should develop a high degree of skill, a keen appreciation of efficiency, the theory and practice of management, including the theory and practice of economics, related technical subjects and a broad knowledge of social demands and tendencies. Special courses should be offered for special needs. There is generally a demand for short unit evening school courses of a highly specialized nature for women in the home who desire to remedy defects in their training or prepare for specialized duties. There is need also for courses designed for women in industry who expect to transfer to the home.

The modern tendency in vocational courses is to separate them definitely in methods, contents and time from courses in general education. The genuine course in vocational education will not be dominated by college requirements though the related subjects, at least for the advanced courses, may be quite as valuable for other than college purposes as those usually given as part of college preparatory work. The minute, however, that courses are made to suit the demands of college they lose in practical value, in industrial significance and in the development of skill.

Happy To Say—

WHO is responsible for mitigating much of the contempt for educators that came down from prerevolutionary times before Washington said they must be considered as of primary importance, or Madison called them a certain and vital desideratum?

SUCH elevation in honor that has come is due to those like Horace Mann, Henry Barnard; to that numerous body of researchers who are making education a science, and to a growing number of educators in all positions who resent seeing those positions treated with contempt.

AT ANY rate it is now possible to say with truth, "You can't despise me because I am a schoolmaster. Nor, if you think me despicable, is it fair for you to despise schoolmastery." The trouble, when contempt is evident, may be not so much with the profession as with the professor.

TO INSIST on respect for a position when you are in it is rather ticklish business. But to thrust members of your staff into public recognition and respect subjects your place to no contempt, rather the contrary. Only a prig will talk about respect due himself.

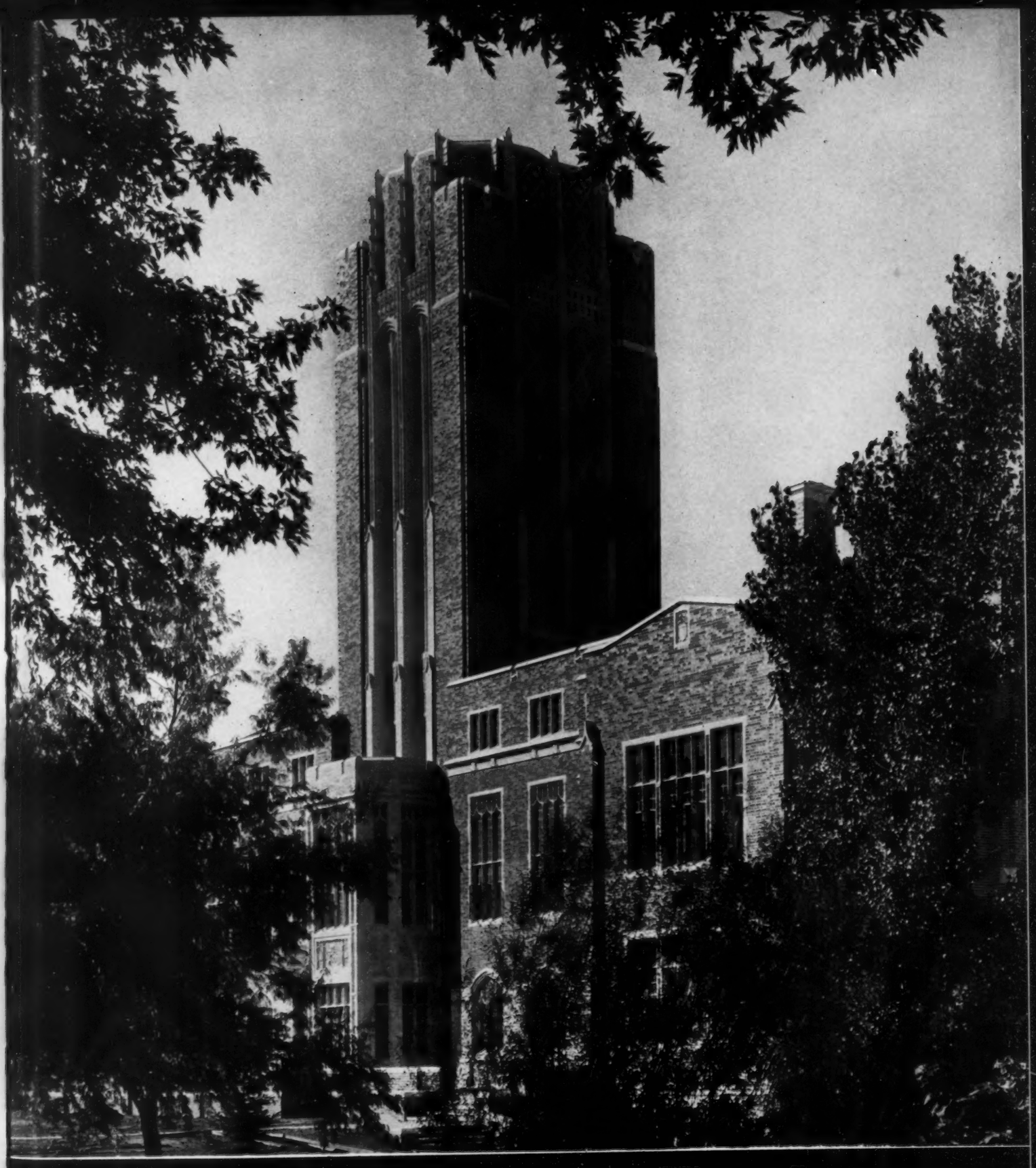
THERE is a not uncommon notion that superintendents are too lax in honoring their own people. Even the great Maxwell of New York had the reputation of being jealous of the rise of any of those whom he usually called "my subordinates." In many a town the relations of superintendent and high school principal have not been such that they kiss when they meet.

CHADSEY, in Detroit, and Cody, following him, were keen to get school people into public favor through chambers of commerce and clubs. Glenn, Stetson, Crozier, Sutton, Pickell, Kelly, Weglein, Potter, Frasier, Meek, Studebaker, Harman, Threlkeld and Reed seem to be executives of this type. If I knew more men better, I could make a long list. There must be hundreds of them. It is becoming the style. This exposure of teachers to respect is certainly one of the most delightful activities among the pleasures of school superintendency.

WHEN you study the speeches given at the conventions of the National Education Association and its Department of Superintendence in the past two years you realize how decidedly the concept of public education is moving toward the ideal held by the men who set up this Republic.

THEY held that the teacher supported by public taxes must be first of all expert in civic affairs and an expert participant in them. In addition he should be skilled in transmitting this knowledge and in getting the oncoming generation to active sharing in political duties.

Wm McAndrew



THE SCHOOL PLANT

How a Fathers' Association Supports a Country Day School

ON MARCH 4, 1813, the state board of regents granted a charter for an educational institution in Albany, N. Y., to be known as the Albany Academy. In 1815 the city fathers voted $100,000 for the erection of a building, a sum twice the amount of their annual municipal budget. Philip Hooker designed the new edifice which opened its doors in September, 1817.

That edifice was the home of academy boys for 114 years. On November 21, 1929, after a dedication speech by Franklin D. Roosevelt, then governor of New York, the corner stone of the new Albany Academy was laid.

The campaign to raise money for a new school building began shortly before the crash of the stock market in 1929. Despite the difficulties encountered, this campaign gave the school authorities faith in the permanence of the ideals and traditions of this institution about to broaden into the country day school plan of education.

One unique feature of the campaign was that no benevolent scion of a wealthy family appeared on the horizon to contribute a sum running into six or seven digits. The people who were in a position to help were not interested because the academy was strictly a community school. Therefore, the community had to bear the burden.

As in any private institution, the main support came from alumni and trustees. But this campaign was almost concomitant with the early growth of a new vitalizing force in the life of the school. In June, 1927, a group of fathers of boys then in the academy met in the office of Headmaster Islay F. McCormick to discuss the possible formation of an active organization composed of all academy fathers, past or present. By November, 293 fathers, representing 351 pupils, had voluntarily enrolled in this group, which was to be known as the Albany Academy Fathers' Association. By June of the next year, 356 fathers had enrolled, representing 412 pupils and former pupils. At that time one father represented three boys in the school and two graduates. Five fathers each represented three boys in the school, and thirty-six others represented two or more academy boys with at least one on the current roster.

After the city of Albany had purchased the old building for $450,000 the trustees pledged $100,000 to the new building in 1929. The fathers' association followed suit by pledging an equal amount and took as its special project the equipping of an extensive new library, which was to be a replica of the famous chapel of the old school. The formation of the fathers' association was probably suggested by the existence of P. T. A. groups throughout the country. The campaign has been only one indication of the enthusiasm of the group.

The slogan of the fathers' association is: "No father can have a more important interest than the education of his son." The principal purposes and aims as defined in the association's constitution are as follows: (1) to unify the common interests of the faculty, parents and boys of the academy, (2)

Above: The academy does not try to make soldiers of its boys, yet the battalion is one of the features of extra-curricular activity. Right: Every boy engages in some athletic pursuit as a regular part of his school day.

Music and dramatics are an important part of the work in the Lower School. This junior choir under a trained leader participates in many programs.

By LYMAN B. OWEN
Albany Academy, Albany, N. Y.

to further the general interests of the school in its relations to the public at large, (3) to help, by united effort as fathers, to solve the difficult social, hygienic and other problems of boys, (4) to offer an experienced guidance by business and professional men to counsel the boys regarding their education and business activities subsequent to leaving the academy and (5) to supplement the work of the trustees, faculty and alumni in maintaining the present high standing of the Albany Academy.

The fathers' association appointed a committee on counsel which took for its task the assembling of facts about college preparation, professional careers and opportunities in business. This committee (1) does not attempt psychoanalysis or other classification of the boy, (2) never actually advises or urges him toward any activity, (3) wherever possible, consults with boy and father together, or works with father as well as boy, (4) promotes in every way discussion and investigation of this subject, (5) builds up a fact finding and reference program as permanent as possible and (6) covers the boys both in school and after they have left the academy, whether they enter college or not, and even after they have been graduated from college.

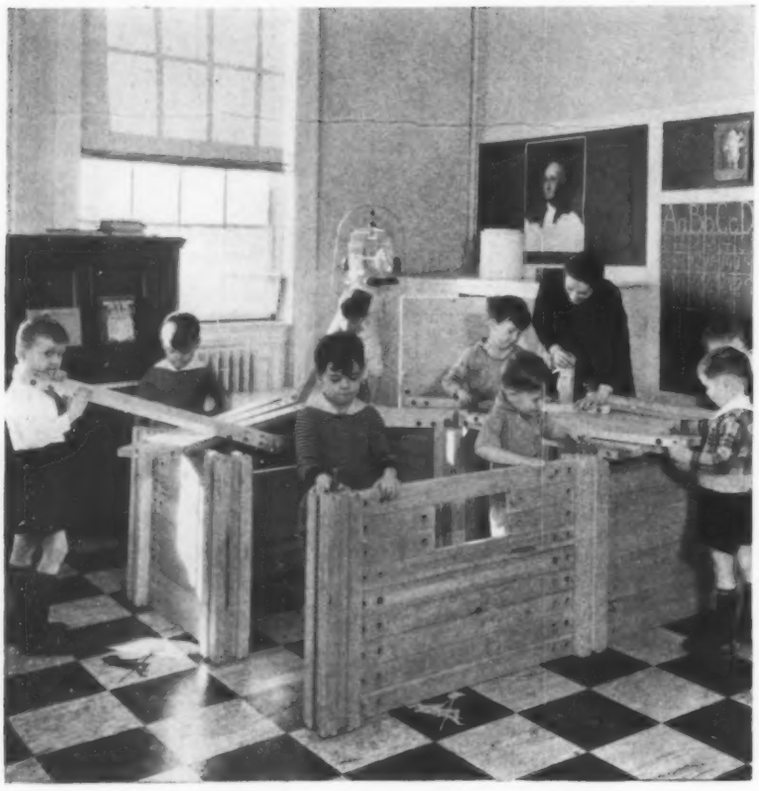
Some excellent work has been performed through the efforts of this committee with individual boys. Several leaders in business and the professions have stood before the school and addressed the boys collectively on the vocations they represent.

Another problem vital to most persons interested in schools is that of pupil deportment inside and outside of school. In that connection the fathers' association drew up a set of recommendations that were later endorsed by the board of trustees, the faculty and the student council.

A few of these recommendations follow: (1) that parents shall assume responsibility for safe and proper means of arrival and return of their sons and daughters for evening functions, (2) that attendance of pupils at social functions shall not continue after 1:30 a.m. and (3) that entertainments of all forms be discouraged on days other than Friday or Saturday, except during holiday recesses.

The academy is not a military academy and does not aim to make soldiers of its boys. Military drill, however, is a part of the curriculum. One of the finest attributes of character to be derived from this activity, in the words of a father, is "what might be termed 'emergency response'—the ability to think clearly and act sanely in crises and to assume leadership if necessary."

The matter of enrollment is a vital one. The new building was designed to accommodate 500



Left: Nursery pupils learn early in the year to do things with their hands. Opposite page: The principal façade of Albany Academy.

boys. It must be remembered that a roster approaching 500 and drawn entirely from a community such as Albany cannot be composed entirely of boys from wealthy families. Many families of moderate income that find the cost of tuition a considerable item on their budgets must support the school. In this connection it is interesting to observe the rise and fall of enrollment since 1928. Here are the figures: 1929, 427; 1930, 453; 1931, 466; 1932, 471 (the end of the first year in the new building); 1933, 425, and 1934, 387. Enrollment now is 40 below that of 1929, the peak year in the old building, and 84 below that of 1932, the peak year in the new structure.

The Proposition Was Put Squarely

During the past decade, before moving to its new site, the academy had had a waiting list. This was due largely to its high standard of scholarship gained in competition with other private schools in the college entrance examination board's examinations. But scholarship, prestige or reputation matters little when depression has its turn. It has been difficult to transform an attitude engendered by superior performance and characterized by complaisance into the frame of mind necessary for advertising appeal. In spite of the tardy consummation of this transformation, the academy has been particularly fortunate in this matter of enrollment.

And why is this? Doctor McCormick made a direct appeal to the fathers at their annual meeting. There were no ballyhoo and no sentimental drive. The proposition was put squarely. A fine new plant was at their disposal. It could not operate without boys. He asked if the fathers would stand by, even when it hurt, in order to preserve the ideals and traditions of a grand old institution. A show of hands indicated their assent.

Because of this appeal pupil loss at the end of last year was no greater than in years past. The decrease in enrollment was due to the fact that, whereas an average of 90 new boys had entered each fall for five years preceding 1932, in the fall of 1932 and 1933 only 42 and 46 new boys entered, respectively.

The latest move of the fathers' association has been the organization of a definite drive to increase enrollment. This has been done with the aid of the trustees, alumni and faculty. A father who is also one of the best sales promotion managers in New York State has devoted hours of his time to the preparation of an intriguing brochure to be used in the campaign and has outlined the main lines of attack.

A newly formed mothers' association is active in the Lower School. It has conducted many interesting programs of child-parent interest and is making itself felt in the actual policies and activities of the school. Each year since the inception of their association the fathers have come to school on a Saturday evening in late fall to "attend classes." Each father is presented with his son's daily schedule. Teachers meet the fathers in their classes for twenty-minute periods. During this time the members of the faculty discuss teaching practices and briefly outline their courses. The salutary effect of this custom cannot be overestimated. In the fall of 1933 the fathers invited the mothers to "attend classes" with them. After "school" a typical supper of the luncheon type was served in the school refectory.

The new school's aims deserve some mention at this point. As the headmaster says, "The academy is progressive but not Progressive." An eminent college president recently wrote of the school, "It

has aimed never to discard any policy or procedure merely because it was old nor to adopt any theory or practice that was new merely because it was new."

The Albany Academy is entirely college preparatory, with twelve grades of elementary and secondary school with kindergarten. Instruction and activities are on the usual country day plan. All boys are required to take the C. E. E. B. examinations for admission to college. In June, 1933, 121 academy boys took these examinations. During the last ten years 264 boys have entered college from the academy and 254 of them have successfully upheld the school's high ideals of scholarship.

Thirty acres of playing fields, tracks, diamonds and tennis courts allow an extensive outdoor athletic program. Inside, a large gymnasium, swimming pool, wrestling room and playrooms facilitate winter athletic activities. Each boy in the Upper School may choose his sport or sports for the fall, winter and spring program. All boys engage in athletics.

And so the academy marches on, having stemmed the current of the depression. Its past is replete with romance and tradition; such names as Joseph Henry and Herman Melville suggest distinction. The academy's present is a challenge and a test. Its future is an interesting adventure.

Architect Preserves the Old in Creating the New

By MARCUS T. REYNOLDS
Architect, Albany, N. Y.

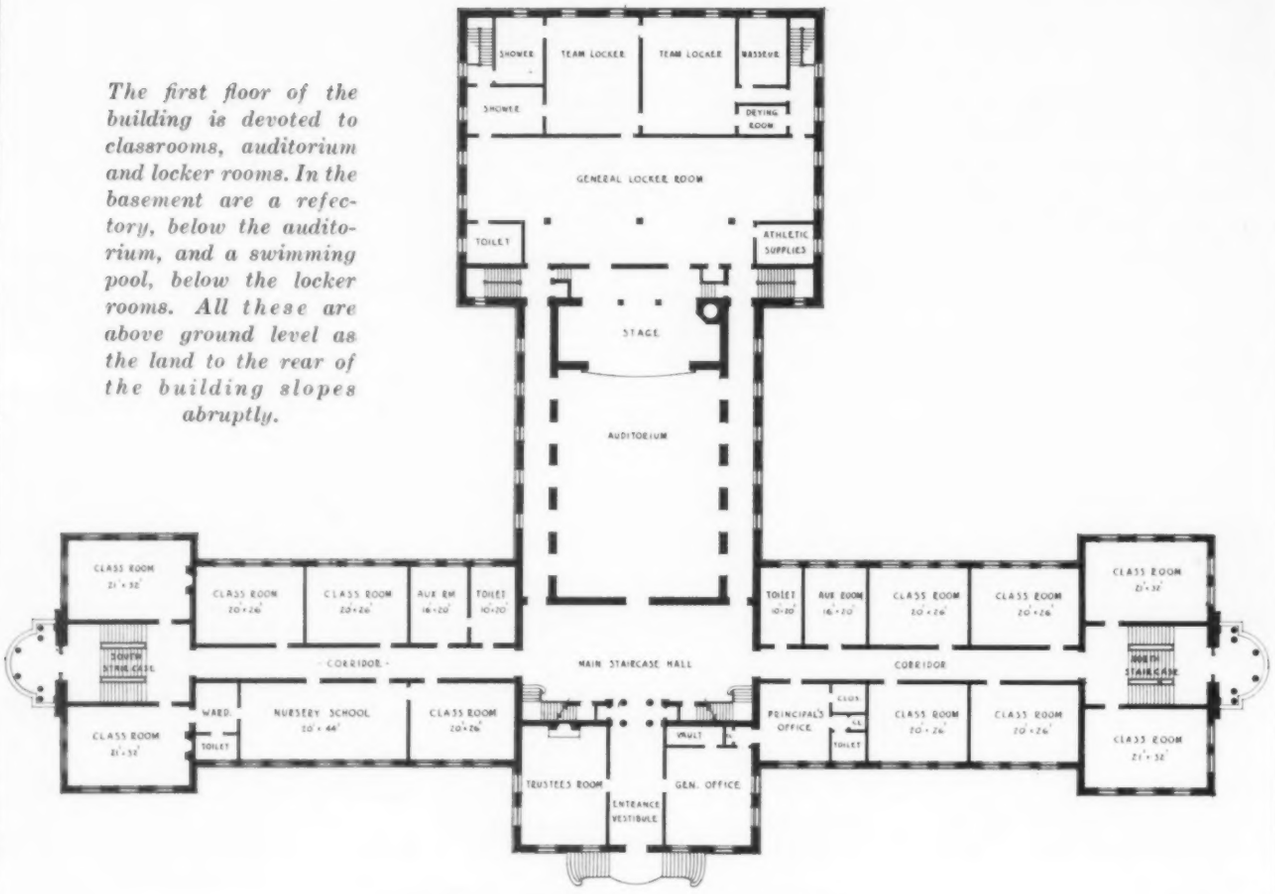
PROBABLY no community was more affected by the Revolution than the small trading post of Albany with its thirty-five hundred inhabitants. In a few years it became the capital of the state and the portal of the Mohawk Valley through which passed the vast emigration that settled the West.

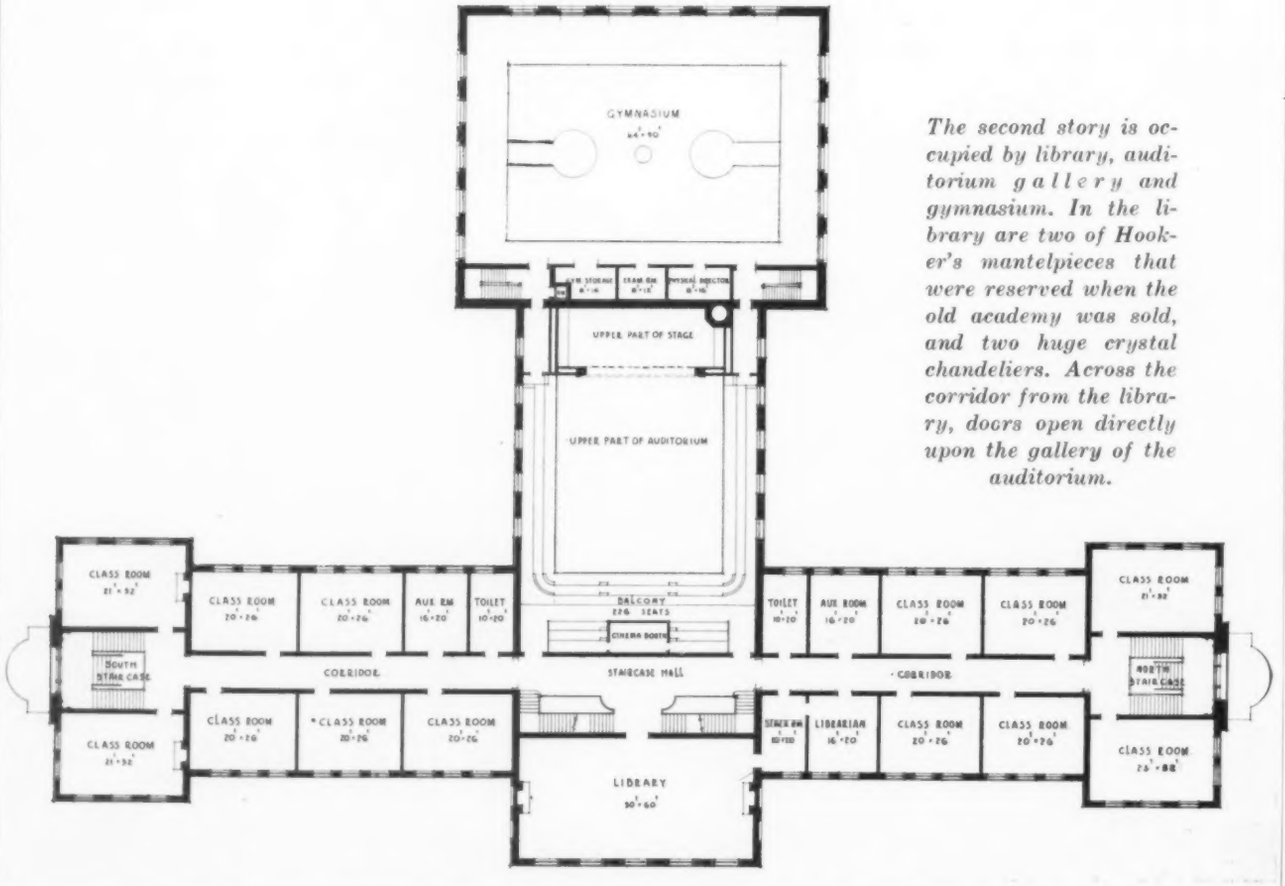
Consequently, the old city rapidly became overcrowded. The ancient Dutch yielded before the advance of the Yankees, and under this influence Albany was demolished and rebuilt along the lines of the English Georgian period. Fortunately, the buildings were well designed, elegant and rather extravagant.

Philip Hooker was the most famous architect Albany ever produced and by an act of Providence the rebuilding of the city was largely his work. Among his buildings that have survived is his most beautiful work, the Albany Academy.

The Albany Academy was incorporated in 1813 and two years afterward was erected, from the designs of Philip Hooker, an imposing free stone building in the Italian Renaissance style with a façade adorned with Ionic capitals and other elab-

The first floor of the building is devoted to classrooms, auditorium and locker rooms. In the basement are a refectory, below the auditorium, and a swimming pool, below the locker rooms. All these are above ground level as the land to the rear of the building slopes abruptly.





The second story is occupied by library, auditorium gallery and gymnasium. In the library are two of Hooker's mantelpieces that were reserved when the old academy was sold, and two huge crystal chandeliers. Across the corridor from the library, doors open directly upon the gallery of the auditorium.

orate trim. This building still exists and is considered an architectural monument of that period.

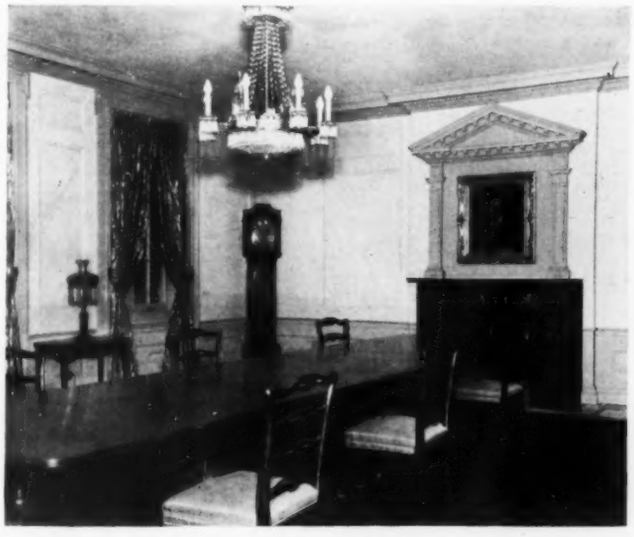
In 1902 the trustees decided to provide an athletic field and purchased a tract of about thirty acres some two miles distant from the old school building. In 1928 the state acquired all the property in the neighborhood of the old academy for the development of a park, leaving the academy as the only building remaining in this area.

It was then determined to abandon this structure and to erect a new country day school in the immediate proximity of the athletic field. The old building had been the educational home of generations of Albanians and it was with the greatest regret that this step was taken. The problem, therefore, was to provide a new school building that would suggest as nearly as possible the atmosphere of this old and well beloved structure.

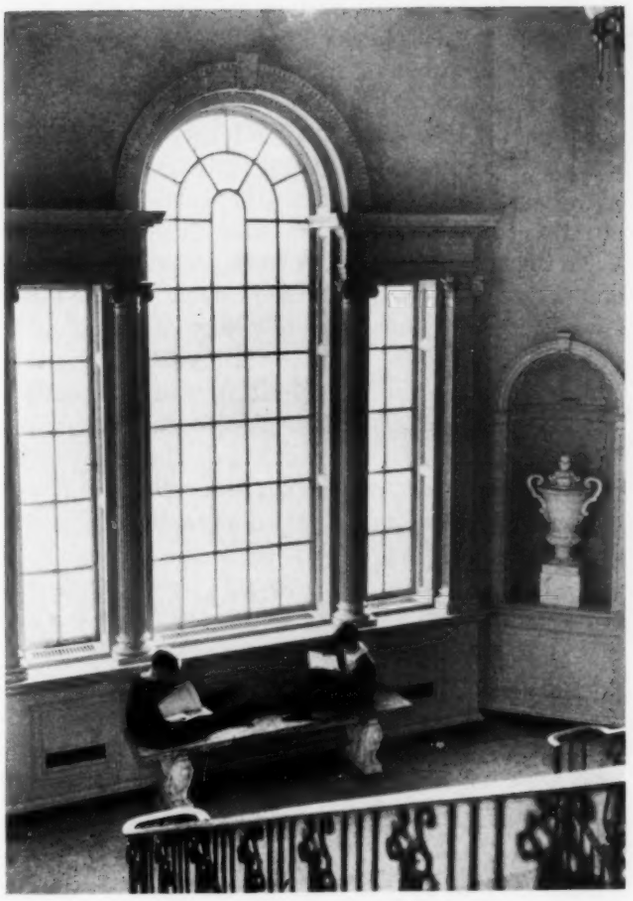
The new building is of Harvard brick laid in Flemish bond and trimmed with grayish white Vermont marble. Physically it bears no resemblance to its predecessor, although the atmosphere of the old building has been successfully preserved.

The new building is in the form of a St. Anthony's cross. The structure in the center accommodates the administration offices and all departments for the common use of the student body, which now numbers 387 and has a maximum capacity of 500. This central feature is 63 feet 10 inches in width and 217 feet 11 inches in depth. On either side stretch wings 117 feet 5 inches in length and in a parallel plane, terminated with pavilions, so that the whole façade measures 298 feet 8 inches. One of these wings accommodates the Lower School and the other the Upper School.

A cupola of lead crowns the intersection of the two axes. The design of the cupola was inspired by that on the old Albany Academy and it is crowned with the famous "Codfish and Pumpkin" weathervane which Hooker designed for the Second Presbyterian Church and which the church authorities presented to the academy, together with the bell installed therein.



The trustees' room is furnished in Duncan Phyfe style. The chandelier was the gift of a graduate whose home was also designed by Philip Hooker.



Palladian windows in the north pavilion with marble seat and marble urn brought from Italy by the architect. In this tranquil spot pupils congregate for conversation or study.

There are three main staircases, one in the center of the building on which the main entrance gives, the other two at the centers of the terminal pavilions. Here semicircular porches of rather elaborate design give shelter to the elliptical arched entrances, the transoms of which are filled with leaded glass. Above the porches are large Palladian windows that light the marble staircases with their bronze and iron railings and the marble window seats on the landing between the first and second stories.

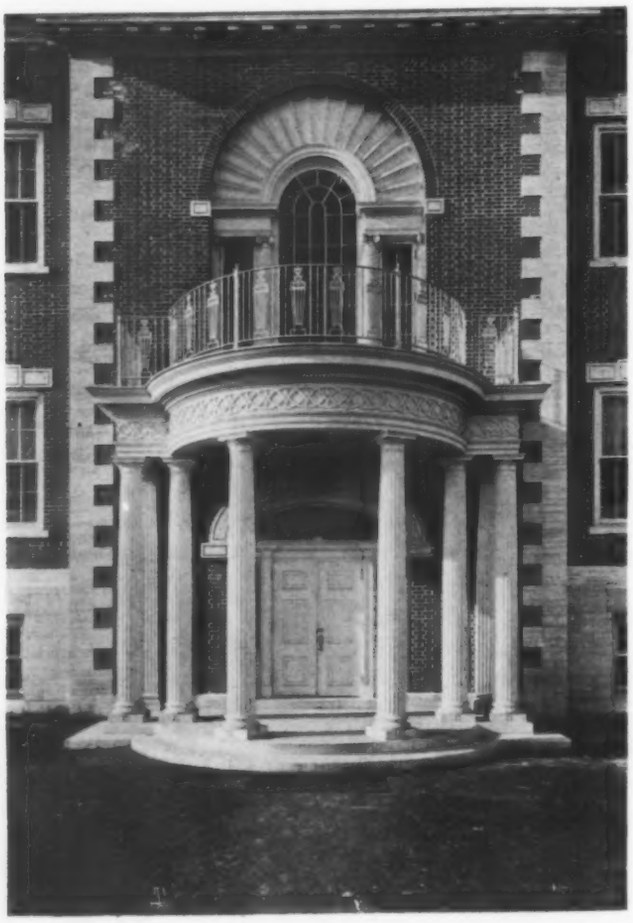
The center entrance is for the accommodation of instructors, trustees, parents and visitors using the library, auditorium and gymnasium. The rather formal marble entrance opens on a hall fourteen feet in width, the architecture of which was inspired by that of the famous entrance hall of the old academy. The elaborate pedimented doorways, columns and pilasters of the old build-

ing have been reproduced in the new. This hallway connects with a second and narrower corridor that extends through the longitudinal axis of the front structure.

Immediately opposite this intersection are doorways leading to the auditorium and to two passageways that flank it. These give upon the athletic building immediately in the rear of the auditorium.

On one side of the main entrance are the school offices and the headmaster's office, and on the other side is the trustees' room, which is panelled in painted wood from floor to ceiling. This room is furnished in the Duncan Phyfe style and is adorned with an unusual and elaborate crystal chandelier, the gift of one of the graduates. The auditorium is at present wholly without adornment but has been designed to be completed at some future time as a memorial gift. Below it, in the basement, is the school refectory, wainscoted from floor to ceiling with knotty pine, and under the front portion of the building is a large playroom for the use of Lower School pupils in inclement weather.

The structure in the rear of the auditorium is devoted to athletic pursuits. This structure measures approximately 95 by 76 feet. The two passages flanking the auditorium give directly upon large locker rooms, showers, rooms for the various school teams, and rooms for physical examination. Below this is the swimming pool, which is of standard measurement, 20 by 60 feet, with shower rooms at either end. Below this in turn are the boiler rooms, janitor's rooms and repair shops.



Porch of the south terminal pavilion. Notice the pleasing congruity of the austere Doric columns below and the smaller Ionic ones above decorating the Palladian window.

Fortunately the land sloped abruptly to the rear so that all of these rooms are entirely above the ground level. The rear elevation measures 60 feet from grade to cornice, and by manipulation it was possible to obtain an entrance at each story.

In the second story of the central feature, the front is occupied by the library, which is also incomplete, but which suggests in many ways the famous chapel of the old Hooker building. It is adorned by two of Hooker's mantelpieces that were reserved when the sale of the old academy was made, and by two huge crystal chandeliers. Across the corridor, doors open directly upon the gallery of the auditorium.

The second story of the athletic building is devoted to the gymnasium. This room is lighted by sixteen large arched windows and the floor area measures 90 by 64 feet. There is also a gallery that offers provision for boxing and wrestling, and below this are offices and dressing rooms for the various athletic instructors.

The Costs of Construction

Leaving the central building, the two wings contain, in the basement, locker rooms and toilets. Each of the two stories in each wing provides six classrooms capable of accommodating seats for thirty boys each, but at the present time only twenty desks are needed.

A high studded attic story lighted by dormer windows covers the front portion of the structure. This accommodates in the front building the drawing rooms, modeling rooms, a large music room and several smaller rooms for private musical instruction. The entire space above the auditorium is given over to chemistry, physics, biology and general science laboratories.

The new building immediately adjoins the twenty-five-acre athletic field. Here are two football gridirons, four baseball diamonds, four tennis courts, a four-forty cinder track, with a two-twenty straight away, a board track and a hockey rink.

The building contains a total of 1,865,102 cubic feet. The cost, including grading, was $907,885.53, or $0.487 per cubic foot. Not including grading, the cost was $0.47 per cubic foot. Construction claimed 83.3 per cent of the total expenditure; heating, 8 per cent; plumbing, 5.2 per cent, and electrical installation, 3.4 per cent.

How to Refinish and Polish School Furniture at Low Cost

Economical and efficient methods for resurfacing and refinishing desks and laboratory table tops, and for cleaning and polishing furniture are described. Formulas are given for inexpensive homemade acidproof stains and furniture polishes. Next month Mr. Frostic will discuss cement walks and drives—their repair and replacement and the construction of new traffic avenues of this material

By FRED W. FROSTIC
Superintendent of Schools, Wyandotte, Mich.

FURNITURE and equipment, like the school plant, are subject to continuous depreciation both in physical condition and from obsoletism. The rate of depreciation on furniture, especially desks, tables and chairs, is often excessively high due to type, quality and material of construction on the one hand and to the lack of proper maintenance on the other hand.

All school furniture should be studied carefully as to the probable rate of depreciation before final selection is made. Once the material is installed it is too often forgotten until complete replacement is necessary. Most school systems are stocked with large quantities of furniture and equipment which, although in poor condition, as a result of improper repairs or the lack of repairs, cannot be discarded because of the high cost of replacement. The school must meet the problem of continuous maintenance if furniture is to serve its purposes adequately. Any suggestions or methods, therefore, which simplify such maintenance and reduce costs are usually welcomed by the administrator.

Dirty, stained and unsightly desks or other furniture in the classroom contributes to a lower level of instruction, to carelessness and to lower standards of living. The first necessity is to keep desks clean. This is comparatively easy if there is a good finish on the furniture. Frequent washings with a mild soap and water or with a good detergent are sufficient. Not only will the appearance be improved, but also the sanitary condition of the room.

Furniture repair constitutes an almost constant demand. Such repair jobs cannot be delayed for a long period because the equipment is usually needed as soon as possible. Makeshift repairs are almost worse than none at all, because they not only are inadequate to meet service requirements but the equipment is often spoiled for future repair. The practice of temporarily cobbling repair work by unskilled workmen is common. Except in rare instance, janitors are not cabinet makers or even rough carpenters. Such jobs call for a rather high degree of skill. Makeshift work means early discard of the piece and a consequent high rate of depreciation.

Equipment and Stock for Repair Shop

A school system of 4,000 to 5,000 children may well employ a full-time man for maintenance of school furniture and for the many jobs of building and altering equipment which every system requires. A small shop should be arranged near the general instructional shops of the school with enough storage space for supplies, materials and equipment. Location near the other shops will reduce maintenance costs by making the cutting and shaping of materials easily possible with the large machines available. A small universal power saw in the repair shop will greatly facilitate the work.

The repair shop should be stocked with a small quantity of kiln dried wood, usually maple, birch and oak, to be used in replacing broken parts. This wood should be of the best quality and it should be kiln dried for furniture purposes if permanent and lasting repairs are to be made. The repair shop should also contain a supply of screws, angle irons, dowel pins and perhaps some parts of furniture especially liable to replacement. The latter will

depend upon the problems in furniture repair most commonly met. A quantity of tablet arms, legs or rungs can usually be made cheaply at one time and used as needed.

The proper selection of personnel for repair work is highly important. This work not only requires a high degree of skill as a cabinet maker but also ability in refinishing (especially matching) furniture parts. The practice of turning such jobs over to the school shops is usually unsatisfactory and difficult to fit into the instructional plan. Furthermore, the work is likely to degenerate into a mere production program. Such a scheme is usually a makeshift except in cases in which there are large shops with special provisions for handling such problems. Small school systems can usually meet the problem on a part-time basis. The employment of personnel, however, should be at definite periods in order to ensure a reasonably prompt return of repaired pieces.

School desks constitute the largest item of maintenance. Although movable desks, tables and chairs are popular equipment for the modern school, the old fixed seat with iron frame still heads the list in numbers used. The difficulty and cost of detaching the wood parts from the metal and replacing them almost forbid this method of refinishing. When such desks were to be refinished the common practice has been to remove the seats from the room and give them a bath of strong lye in order to remove the finish. Then they were bleached with oxalic acid and the lye was also neutralized at the same time.

The Treatment Was Expensive

This treatment was particularly hard on the wood which then had to be sanded before the stain and finish coats were applied. These usually required a stain, sometimes a filler and two or three coats of varnish. At best this method of treatment was expensive and not altogether successful as a process. Cuts and scratches remained to mar the final results. Varnish finishes were not always selected with sufficient care. Usually the cheaper grades of varnish were used, which chipped off, cracked or changed color so that the seat in a few months looked as badly as ever.

Within the past few years the development of better finishes and better machines has greatly reduced the cost of maintenance of desks, tables and other types of equipment. The first of these is the perfection of an efficient hand electric sanding machine which removes the old finish and refits the top to receive the new finishing material. Fixed seats can be refinished where they stand without the cost of moving them. These belt sanders remove the old finish effectively in a few minutes and ordinary cuts and scratches disappear with the finish. Deep disfigurements of course remain.

The cost of resurfacing with one of these sanders will vary with the condition of the desk and the skill of the operator. While claims are often made that unskilled help can operate these machines successfully, experience has shown that when they are placed in the hands of a good carpenter or cabinet maker better and more economical results are obtained in spite of the difference in hourly wage. The selection and economical use of the sanding belts and a knowledge of wood grain and wood surface contribute to a saving both in materials used and in wear on the machine itself. In the hands of a skilled workman, higher production is the rule.

Different Woods Require Special Treatment

The selection of the machine is important. It is advisable before purchasing to try out two or three types of machines in your repair shop with your own repair man operating them. Some machines will easily resurface soft woods but will do a poor job on oak or birch.

Finishing should follow as soon as the surface of the wood has been properly prepared by the machine. If the wood is oak, a filler must be mixed with the stain in order to fill the open grain. No filler is required if the wood is maple or birch. Birch should always be treated with an extremely even stain because the nature of the grain is such that the finish is likely to appear spotty with any other type of stain. The use of the stain will vary with the treatment to be applied. If varnish is to be used the stain must be applied first. Good varnish makes a satisfactory finish but care must be taken to select only the best materials. These must be applied by a skilled finisher if the best and most economical results are to be obtained. The custodian who is allowed to break loose with a can of varnish during the summer may have good intentions but the "gummy glare" of his trail over desks and woodwork that greets pupils and teachers on their return to school is neither esthetic nor healthful to the eyes.

The newer synthetic gums, such as bakelite, have given long life to desk and table surfaces because of a very tough film which is especially resistant to wear. This finish is particularly desirable on chairs. However, it has one serious fault in that it has so much gloss that, like other varnishes, it contributes to a high degree of glare, which is particularly harmful to eyesight. While some of this gloss can be removed with rubbing oils and pumice the cost is naturally increased to secure the desired result.

In case varnish is to be reapplied on a good surface that is not scratched, the old finish should be

scrubbed off with a detergent, gasoline, benzine or sal soda. Light sanding should follow before the varnish is applied. This method will avoid heavy accumulations of varnish.

Perhaps the most satisfactory finish for desk tops is a high grade of gymnasium floor finish. Three such finishes on the market give the desired results. Many of these finishes have too high a gloss and are too heavy in varnish gums. The best type of finish consists of china wood oil, high grade synthetic gums and volatile solvents. The total solids should not be over 50 per cent. The material should be diluted 50-50 with turpentine or oleum spirits and applied thinly over the newly sanded wood, care being taken to rub off any excess with wool, leaving only a thin coating of the finish. Stains can be mixed directly with this finishing material, thus saving one operation. On freshly sanded work, two coats will give a clear, hard, durable surface, which will not change color or chip off. It is almost impossible to mar or scratch the finish. The final coat should be rubbed off with fine steel wool, which will leave a dull clear finish that is highly resistant to dirt and various kinds of stains, such as ink.

If the finish becomes soiled it can be washed easily with a good detergent or with oil soap. A new dilute coat of the finish can be applied easily after first rubbing the surface with steel wool. Refinishing after the first treatment is done as easily as applying furniture polish. The new material will blend easily with that which has been applied previously. In no case should the finish be applied over old varnish.

Refinishing Laboratory Table Tops

Laboratory tables with black acidproof tops are highly resistant to wear and stains. It sometimes becomes necessary to refinish these table tops or to apply a finish for the first time. The top should be cleaned with the power sander and the formulas given in the following paragraphs should be applied.

Solution 1—125 grams copper sulphate, 125 grams potassium chlorate, and 1,000 grams water. Heat the mixture until all parts are dissolved and then apply two coats of the boiling hot solution with a brush, the second coat being applied as soon as the first is thoroughly dry.

Solution 2—150 grams fresh aniline oil, 180 grams concentrated hydrochloric acid, and 1,000 grams water. Rub off the excess of stain from Solution 1 and apply two coats of Solution 2. After the wood is thoroughly dry wash off all excess chemicals with hot soap suds. Then apply a thin coat of raw linseed oil with a cloth, in order to avoid excesses of the oil, rubbing it in thoroughly. Polish by rubbing down with a cloth or a sponge. The black color usually requires a few hours to appear. The linseed oil may be diluted with turpentine with advantage. The tops may be easily cleaned with water and a new coat of oil from time to time will keep them in excellent condition. Spilled acids or alkalies, if wiped off soon, have no perceptible effect.

Some persons hold that the following modification of Solution 1 increases the resistance to acids and alkalies. Solution 2 is the same as given above.

Solution 1. (Alternate)—40 grams iron sulphate, 40 grams copper sulphate, 80 grams potassium permanganate, and 1,000 grams water.

Excellent Polishes Can Be Made Cheaply

Furniture polishes especially for office furniture, equipment and wood paneling are often in demand. Commercially such polishes sell anywhere from $1.50 to $6 a gallon. Excellent polishes can be made in the maintenance department for approximately $0.75 a gallon. Most furniture polish contains either light golden oil, paraffin oil or linseed oil. Light golden oil is an extremely light grade of paraffin oil, which sells for about 13½ cents a gallon. Paraffin oil sells for approximately 14½ cents a gallon. These products may be purchased from a local oil company or from a local gas station. The following formulas are offered as satisfactory materials.

Formula 1—Light golden oil, 1 quart; raw linseed oil, 1 quart, and water, 1 1/3 quarts. Mix these thoroughly and add the following: acetic acid, ½ pint; butter of antimony, 2 ounces, and wood alcohol, ¼ pint.

Formula 2—Paraffin oil, 1 quart; linseed oil, 1 pint; water, 1 quart; wood alcohol, 1 quart; vinegar, 1 quart, and butter of antimony, 1 pint.

Formula 3—Light golden oil, 2½ quarts; raw linseed oil, 2½ quarts, and water, 3 quarts. Stir to a cream, adding slowly 1 pint of acetic acid. Then add the following: water, 7 pints; wood alcohol, ½ pint, and butter of antimony, ¼ pint.

In making up any of the foregoing formulas it is important to stir constantly while adding the ingredients. In all cases, it is necessary to shake the mixture well before using it. If a more pleasant odor is desired, a small quantity of oil of citronella may be added. If a rubbing polish is desired, 2 ounces of either fine powdered pumice or rotten stone should be added to Formula 1 or Formula 2, and 4 ounces should be added to Formula 3.

Polishes that contain golden oil or paraffin oil may leave a blue cast to furniture after application, because of the oxidation of a thin film of these oils, unless the surface is thoroughly rubbed and polished after application.

Why School Districts Should Avoid Long Term Bond Issues

By PHILIP A. COWEN
Research Associate,
State Education Department, New York

A SUPERINTENDENT in Westchester County, New York, recently recommended that his district borrow funds to construct a school on fifty-year serial bonds. He contended that such a procedure was justified because future increases in property valuation would provide revenue for future additional buildings. He stated further that the voters would defeat any proposition of less than fifty-year bonds.

Perhaps, then, the superintendent is not entirely responsible for expensive methods of financing, insofar as he does not or cannot influence the voting of the people. It is doubtful if the people voting for these fifty-year bonds know that, if they pay 5 per cent interest, the total payments for principal and interest will be more than two and one-half times the amount of the bond issue. This discussion of the financing of school buildings aims to present some of the economic issues, without attempting to exhaust the subject.

A board of education may choose between three distinct methods of financing school buildings or it is possible to use a combination of the three. These are (1) a reserve fund prior to construction, (2) bonds and (3) payments from current revenue. Each of the foregoing methods will be considered separately.

A reserve fund is created by setting aside a certain sum of money each year from revenue. During the accumulation of the reserve interest should be earned. Table I illustrates this procedure for a five-year reserve with interest earned at 4 per cent. Each year it would be necessary to set aside approximately $18,463 in order to have at the end of five years $100,000. This procedure would collect $92,313.44 in taxes and add $7,686.56 interest to make the total.

A number of economists complete the cost of the reserve fund by adding to the amount raised by taxes a charge for the use of the money. This charge, called imputed interest, is justified on the ground that money withdrawn from taxpayers deprives them of its use.

The cost in imputed interest of creating a $100,000 reserve in five years is shown in Table III. This five-year reserve is comparable to a five-year bond issue so that the imputed interest must be charged until the time when the bonds would have been paid off if construction had been financed by bonds instead of a reserve. Imputed interest is charged on the tax money as it is taken from the people. Since at the time of construction the whole sum of $100,000 is tied up, imputed interest is then charged against it and also against the sum it might have earned annually if not tied up.

Selling bonds is equivalent to borrowing money and paying interest for its use. Table II illustrates the cost of a $100,000 school built by selling five-year serial bonds drawing 4 per cent interest. The total sum collected from taxes for the principal is $100,000 and for interest, $8,000. The imputed interest charged at 4 per cent on the prin-

TABLE I—COMPUTATIONS FOR BUILDING A $100,000 RESERVE FUND IN FIVE YEARS WITH INTEREST AT 4 PER CENT

Year	*Previous Year's Balance*	*Taxes for the Reserve*	*Amount to Draw Interest*	*Interest at 4 Per Cent*	*Balance at End of Year*
1	.....	$18,463.00	$18,463.00	$ 738.52	$19,201.52
2	$19,201.52	18,463.00	37,664.52	1,506.58	39,171.10
3	39,171.10	18,463.00	57,634.10	2,305.36	59,939.46
4	59,939.46	18,463.00	78,402.46	3,136.10	81,538.56
5	81,538.56	18,461.44	.....	.....	.....
6					
7					
8					
9					

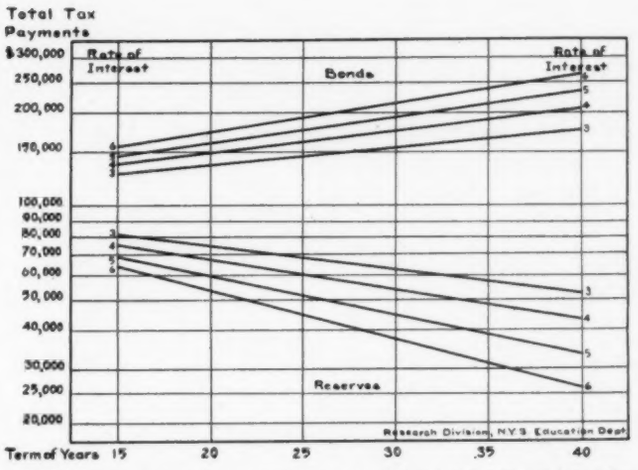
Total From Taxes	$ 92,313.44
Interest	7,686.56
Reserve	$100,000.00

cipal and interest as it is taken from the people adds a charge of $13,665.29.

The preceding illustrations show that no mathematical difference exists between reserves and bonds so long as the term of years for each is the same and the same rate of interest is charged throughout. A fluctuation of interest rates will throw the mathematical advantage either way. For example, the following five-year $100,000 illustration shows the effect of certain rates of interest:

	Rate	*Advantage in Favor of Reserves*
Bonds		
Interest charged	5 per cent	
Imputed interest	3 per cent	
		$6,666.97
Reserves		
Interest earned	4 per cent	
Imputed interest	3 per cent	

The exact rates of interest to be used in any actual situation must be determined. There is some probability, however, that the bond rate will be higher than the interest earned on reserves. This is because it usually costs more to borrow cash than one can get for lending it. The imputed interest rate to be charged against a reserve fund is likely to be lower than the rate of interest to be earned by the reserve. This is because a large sum of money can usually be invested to better advantage than many small sums individually. Consequently money should not be worth so much to the average individual as to the board of education. Interest rates shown in the foregoing illustration probably represent a common relationship of rates. They show an advantage in favor of the reserve fund which would increase if the term of years were longer.



Total tax payments necessary to build a $100,000 school by means of bonds and reserves, with various terms of years and rates of interest.

Some school administrators are inclined to omit the imputed interest charge from their calculations. In this case there is a considerable economic advantage in favor of reserves. The accompanying chart shows the total tax payments needed for a $100,000 building financed by reserves and bonds. The extreme differences are significant.

The pay-as-you-go plan—paying for construction from current revenue—appears to be ideal for

TABLE II—ACTUAL AND IMPUTED INTEREST ON A FIVE-YEAR BOND ISSUE FOR $100,000 AT 4 PER CENT

Interest on Bonds

Year	*Debt at First of Year*	*Taxes for Principal*	*Taxes for 4 Per Cent Interest*	*Total Payments for Principal and Interest*	*Debt at End of Year*
1					
2					
3					
4					
5	$100,000.00	$20,000.00		$20,000.00	$80,000.00
6	80,000.00	20,000.00	$3,200.00	23,200.00	60,000.00
7	60,000.00	20,000.00	2,400.00	22,400.00	40,000.00
8	40,000.00	20,000.00	1,600.00	21,600.00	20,000.00
9	20,000.00	20,000.00	800.00	20,800.00	
Total		$100,000.00	$8,000.00		

Imputed Interest

Year	*Amount Subject to Imputed Interest in Previous Year*	*Amount Subject to Imputed Interest This Year*	*Total Amount to Date*	*Imputed Interest at 4 Per Cent*	*Amount Subject to Imputed Interest at End of Year*
1					
2					
3					
4					
5		$20,000.00	$ 20,000.00	$ 800.00	$ 20,800.00
6	$20,800.00	23,200.00	44,000.00	1,760.00	45,760.00
7	45,760.00	22,400.00	68,160.00	2,726.40	70,886.40
8	70,886.40	21,600.00	92,486.40	3,699.46	96,185.86
9	90,185.86	20,800.00	116,985.86	4,679.43	121,665.29
Total				$13,665.29	

communities that complete the same number of buildings every year. It avoids many of the administrative difficulties encountered in creating a reserve, such as forecasting the building needs and costs and safeguarding the investment and expenditure of reserve funds. This plan also avoids the payment of interest on bonds. It is a method of financing midway between bonds and reserves. It does not earn interest for the taxpayers as do reserves but it leaves money with the taxpayer until it is needed to pay for construction.

TABLE III—IMPUTED INTEREST CHARGED AGAINST A FIVE-YEAR RESERVE FUND AT 4 PER CENT IN CONTRAST WITH FIVE-YEAR BONDS

Year	*Previous Year's Balance*	*Taxes for the Reserve*	*Amount Subject to Imputed Interest*	*Imputed Interest at 4 Per Cent*	*Balance at End of Year*
1	.....	$18,463.00	$ 18,463.00	$ 738.52	$ 19,201.52
2	$ 19,201.52	18,463.00	37,664.52	1,506.58	39,171.10
3	39,171.10	18,463.00	57,634.10	2,305.36	59,939.46
4	59,939.46	18,463.00	78,402.46	3,136.10	81,538.56
5	81,538.56	18,461.44	100,000.00	4,000.00	104,000.00
6	104,000.00	.....	104,000.00	4,160.00	108,160.00
7	108,160.00	.....	108,160.00	4,326.40	112,486.40
8	112,486.40	.....	112,486.40	4,499.46	116,985.86
9	116,985.86	.....	116,985.86	4,679.43	121,665.29
Total	.....	.....	.....	$29,351.85	.....

Taxes Against Reserve Fund	$ 92,313.44
Payments From Imputed Interest	29,351.85
Total	$121,665.29

In small places where school buildings are constructed infrequently and where the creation of a reserve fund may not be practical, the financing of schools on a statewide basis would make possible the pay-as-you-go plan or a cooperative reserve fund. Every effort should be made to avoid long term bond issues. If bonds must be issued to build a school, and in many cases they are necessary, they should be retired before the next school is built. Long term bonds are bad but long term issues that overlap are worse. The schools are now so heavily in debt that many years would be required to place them on a more economical basis of financing, even if they all started now on a new policy.

For the year 1929-30 the outstanding bonded debt for schools in New York State was $259,147,786. The amount paid for the redemption of bonds was $20,586,040.23 and for interest, $22,665,332.94. If we may assume that these bonds average thirty-year issues at 5 per cent and that the annual payment for debt service will remain as indicated above, it will require as much as eleven and two-thirds years to liquidate this debt alone.

How to Wash Walls

An excellent and instructive article on the subject of washing walls appears in the March issue of the *American Painter & Decorator*. This article, written by George B. Perry, editor of that publication, and addressed to painters and decorators, contains a wealth of valuable information for the school superintendent in letting painting contracts or in planning and supervising the work of his own staff. Pertinent excerpts are, with Mr. Perry's permission, given in the paragraphs which follow:

"A good many streaks are caused when washing a wall by water and solutions running down the dry wall below the place where one is working. Such streaks are almost impossible to remove without using strong solutions which will remove the paint too.

"This type of streak is easily prevented by wetting a section of the wall, starting at the bottom and working up, before starting the washing operation. Then when one starts to wash at the top of the wall the solution will run down a wet wall and have almost no streaking effect.

"When a wall is to be washed the temperature of the room should be reasonably low—low enough so that the water will not dry on the wall. This is another cause of streaks. Once the dirt is moistened the wall must be kept wet until the dirt is removed.

"A good painter doesn't rub hard for he realizes that such tactics will push the dirt into the finish, particularly into a flat paint finish. Instead he uses his solution to soften and loosen the dirt so that it can be rinsed off.

"He applies the water or solution with a circular motion of the sponge and hand. When working with the cleaning solution he starts at the top of the wall and, using the circular motion, works across a given section first to the right, then to the left, working on down to the base.

"Then he returns to the top where the solution has been at work softening the dirt and works across and down again. When the dirt has been removed he takes clean cold water and a clean sponge and goes over the wall a time or two to be sure that it is perfectly clean and that no traces of the alkali solution remain.

"The rinsing should be done before starting to wash a new section because if the alkali solution is allowed to dry on the surface some of it may penetrate the old paint and make it difficult to remove, and if any trace of alkali remains it is likely to soften and cut through the new paint, thus ruining the new finish.

"The procedure for washing walls that are not to be painted is similar—the only difference being that a much milder solution should be used to soften the dirt. If the wall is not to be repainted it should be dried with a chamois after rinsing in order to prevent streaking."

Motion Pictures Bring Life Into the Classroom

By ELLSWORTH C. DENT
Secretary, Bureau of Visual Education, University of Kansas

IN SEVERAL situations the motion picture will serve better than any other type of projected visual aid. With the motion picture camera, one is able to take pictures of any rapidly moving object even at the speed of a rifle bullet and to slow them down for study. It is possible, therefore, to study thoroughly the action of objects that would be much too rapid for the unaided eye to analyze.

The nearest approach to the real in studying objects in motion is the motion picture. In some cases it is actually more effective than first-hand observation. But it should be used in the classroom only when motion is necessary to give the correct impression. A movie of an inanimate object is not as satisfactory as a good slide, photograph or model

The same instrument may be used to speed up action to the point where a normal life cycle of a plant, for example, can be presented on the screen in a minute or less—action that would be much too slow to be perceived by the eye. Similarly, it may be used to stop the motion of a moving object at any desired point for study. And by use of the animated drawing, it can bring before any group action or objects that would be invisible to the unaided eye. A steam turbine, for example, appears to be just a huge metal case in which something is happening to turn it as steam passes through it. Watching it might give the pupil all sorts of conceptions and misconceptions. However, a simple animated drawing of what happens inside the turbine may be projected to the screen in a manner that will be intelligible to all.

The motion picture camera, with the aid of the microscope, can be used to record and reproduce the normal action of life forms much too small to be seen by the unaided eye. Furthermore, these animalcules in action may be projected to a screen, greatly enlarged, for concentrated group study—a thing that cannot be accomplished in any way except through micro-projection. By the same process, the eye of a fly may be made as large as a balloon; the head of an ant may be enlarged to fill a space six or eight feet in diameter; the blood stream in a capillary can be enlarged to the size of a small brook, and a paramecium may appear as large as a small boat.

The motion picture may be used to present animated diagrams or statistical data in such a way that they will form an indelible impression upon the viewer. It may be used to provide a brief survey of broad topics. With the various tricks of motion picture photography, it may be used to clarify impressions concerning almost any situation in which motion is necessary to convey the message correctly. It can bring all parts of the world to the classroom. It can present in normal motion the many life forms which could not be brought to the classroom and to which it would be difficult or impossible to take classes or other groups for direct contact. It is the nearest approach to the real in studying objects in motion and, in some cases, will prove to be more effective.

It would be unfair to pay all these glowing compliments to the motion picture without calling attention to some of its shortcomings. The motion picture, at best, is but a substitute for the actual experience. If it is possible to study life forms in their natural surroundings, the school journey should be utilized instead of the motion picture. Furthermore, the motion picture should be employed only in those situations in which motion is necessary to give the correct impression. A motion picture of an inanimate object is not as satisfactory as would be a good slide, photograph or model of that object.

The motion picture projector is a rather simple combination of gears and gadgets, but some teachers encounter difficulty in operating it. A reasonable amount of mechanical aptitude is required

to be able to take proper care of the projector. There is much danger of damage to the film if the projector is not cleaned, oiled and operated properly. The projection of motion pictures requires a more thorough darkening of the room than would be necessary for the projection of glass slides. The cost of the equipment and of the service is greater than the cost of still picture projection equipment and service. All these limitations but serve to emphasize the importance of using the motion picture only in those situations in which motion is required.

Sizes of Film in General Use

Many different sizes of motion picture film have been placed on the market during the last thirty-five years. These have ranged in width all the way from 8 mm. to 70 mm. The standard size of film for theatrical use is 35 mm. in width, whereas the majority of the schools that make use of motion pictures prefer the 16 mm. film. There are many advantages of the 16 mm. motion picture for educational purposes. In the first place, it is much cheaper than the film of 35 mm. size both in purchase price and in the cost of transportation. The fact that it is safety film means that it can be shipped by ordinary parcel post in small paper cartons at one-quarter or one-third the cost of shipping a comparable reel of 35 mm. motion picture film.

Another great advantage of the 16 mm. film service is the ease with which it may be handled. It is light in weight so may be carried from place to place without difficulty. Furthermore, the projection equipment for the use of this film has been simplified to the extent that any teacher with only a few minutes of instruction will be able to operate it successfully. It is certainly much less difficult to operate than some of the older classroom projectors for 35 mm. films. In addition to the simplicity of operation that characterizes the 16 mm. motion picture projector, these projectors are extremely light and may be carried from one room or building to another even by a pupil in the intermediate grades. Another advantage is that they may be attached to any standard house lighting circuit without causing undue strain upon the wiring. The average circuit protected with a 10 ampere fuse will be sufficient to operate any of the 16 mm. silent projectors.

In the field of the educational talking picture or sound film there has been some division as to the advisability of developing the 16 mm. film for sound subjects. A short time ago engineers stated that it could not be done. However, some of the same engineers have since been applying their energies to devising methods of recording and reproduction that would permit the use of the 16 mm. as a base.

The first developments in this direction provided for the picture on the film in the usual way with a synchronized disk recording of the sound to accompany the picture. This plan worked rather well but had many of the faults of the vitaphone and other similar recording and reproducing processes used in the theater. There is always danger that the needle of the disk will jump to another groove in which case the remaining part of the picture is out of synchronization. There is a further danger that a break in the film may not be patched properly and that will affect the synchronization. These possible difficulties, which are multiplied by the inexperience of the operator, have caused the various producing organizations to give careful attention to the development of a satisfactory 16 mm. sound-on-film apparatus.

Some of the larger producers of sound pictures are now prepared to record 16 mm. sound-on-film, and several of the manufacturers of projection equipment have developed a mechanism that will reproduce the sound accurately. The chief difficulty encountered in placing the sound on the 16 mm. film was to find ample space for the sound track without further reducing the size of the picture. This was accomplished by omitting sprocket holes on one side of the film and placing the sound track on that side. Some of the successful 16 mm. motion picture projectors have used but a single claw to propel the film through the aperture gate, so it seems logical that this plan of recording and reproducing will prove to be satisfactory so far as the operation of the projector is concerned.

Problems in Use of the Motion Picture

Some problems must be given consideration in connection with the use of the motion picture. The majority of these are minor, but are extremely important. First of all, those who are using motion pictures or who are planning to use them should become thoroughly familiar with the available projection equipment. An operator who does not understand the care and operation of equipment is likely to cause damage to the film, which should be charged to the person causing that damage, as it would be unfair to expect the owner of the film to assume it.

Another problem that will need to be given consideration is that of the cost of film, either through outright purchase or rental, and the transportation of that film from the source of supply to the school that desires to use it. A few years ago it was necessary for schools in certain sections of the United States to send long distances for the films they desired to use. This situation has been corrected

to a certain extent by the inauguration of new service bureaus in various sections, so nearly any school in the United States can now secure service within a distance of from 500 to 600 miles.

The physical equipment of the building or rooms in which the motion pictures are to be used will need to be given some attention. The majority of the older buildings and some of the new ones are not equipped with floor plugs or electrical outlets to accommodate projection equipment. This is excusable in the older buildings, but no building that has been constructed within the last ten years should be without suitable outlets. If such a situation exists, it is almost necessary to have a competent electrician prepare outlets that are in easy reach of those who operate the equipment. It is not desirable simply to drop an extension cord from one of the lamps in the room as it is inconvenient to turn out the lamps in the other sockets and it causes confusion in the classroom. All the physical equipment incidental to projection should be made as convenient as possible in order to avoid the creation of an artificial teaching situation in the room each time the equipment is set up for use.

Those who may be considering the purchase of 16 mm. motion picture projection equipment will do well to give careful consideration to each of the various makes available. It is true that each manufacturer is proud of his product and sees in it all the advantages possible to incorporate in one instrument, but there are really reasons for the differences in mechanical construction and price and those reasons can be discovered, in most instances, by comparison.

Selection of Equipment

For example, the type of projector that does not employ some sort of variable resistance or current control to the lamp will give satisfactory results in those situations in which the line voltage of the available current is both normal and constant. If it should be, however, that the line voltage fluctuates or remains too low or too high, it would be better to have a variable resistance projector, to protect the lamp and to secure maximum brilliance of projection at all times. Lamps are expensive and a projector that does not protect the lamp from probable fluctuations in current would not be satisfactory in irregular situations.

Some consideration should be given to the type of room in which the projector is to be used. In most cases, it is advisable to use educational films in the classrooms. If this is not possible, the next best plan is to equip one room for projection and reserve it for that purpose, taking classes to it when advisable. In such cases — in the special room or in a classroom that can be well darkened — almost any of the more or less standard projectors will be entirely satisfactory. If it should be that the equipment is to be used in a very large room or auditorium, or in a classroom that cannot be rather thoroughly darkened, it will become necessary to select one of the more powerful projectors, utilizing the 500 or 750 watt lamp and with high quality optical equipment.

In all cases, it will be well to purchase equipment on approval, withholding the right to accept or reject it after it has been tried in the normal situation in which it is to be used regularly. Then, if adjustments are to be made, they can be made at the expense of the sales organization that has provided the equipment rather than at the expense of the school. Sometimes it will be advisable to arrange for demonstrations of two or more competing makes, so a decision can be made on the basis of direct comparison rather than on representations. All distributors and sales organizations are ready and willing to arrange for such comparative trials or demonstrations, if they are assured of the sincerity of purpose of those requesting that such service be furnished them.

Accessory Equipment

Certain accessories should be secured at the time of the purchase of the projector. No salesman should be careless enough to permit a school to purchase a projector of any sort without an extra lamp. Projection lamps will give from forty to one hundred hours or more of satisfactory service if handled carefully and connected to the proper current. However, it is possible to break a lamp instantly by jarring it, dropping it or subjecting it to other accidental or careless treatment. If another lamp is not available readily, there may be several days of delay in securing one. An extra lamp is an absolute necessity.

Additional equipment that should be on hand for emergencies would include a film patching and rewinding outfit, a dust cloth, a bottle of projector oil, an extension cord, a small bottle of benzine, and a projection screen of suitable size and type. The representative who demonstrates the equipment will be able to furnish the usual accessories and should be competent to suggest those that will be most readily adaptable to the equipment purchased.

New Visual Instruction Handbook

The Bureau of Visual Instruction, Brigham Young University, Provo, Utah, has issued a visual instruction handbook. It contains complete information concerning the various types of visual aids, the types of equipment to be used with each, and information as to where both materials and equipment may be obtained.

Better School Practices

Circulating Library for Rural Schools

This is a brief description of a system being used in the public schools of Andrew County, Missouri, to provide reading material for pupils at a small cost to the various school districts in the county. It is a system of circulating libraries.

The plan was put into operation as an experiment in the fall of 1929, and it has been in use now for five years. It was the outgrowth of a lack of reading material in the schools, especially in the rural schools of the county. Most of the schools had not purchased new books for their libraries for some time. Andrew County is a farming section, and the slump in farm prices had begun to be felt, even before the present economic depression had set in in earnest.

School boards in the various districts were not buying new books because they felt they could get along with what they had for another year or so. Many schools in the county had few or none of the books required in the state course of study for outside reading, and the majority of schools had few books in good condition that were suitable for the children to read.

Each School Contributes $5 a Year

Both the teachers and the superintendent felt that the children were suffering because of the lack of reading material. The effects of this situation were apparent in their regular school work, as they lacked the proper vocabulary to carry on the work. School boards paid little attention to requests for new books.

Under the new library plan each school contributes $5 a year to the library fund, which is administered by the county superintendent. This money is used to purchase the books called for in the state course of study for outside reading for each grade each quarter. Books for other subjects are not included in the library, because each school is expected to provide these itself. The books are divided into sets of several books each, with books for every grade in each set. At first there were seven books in each set, and now there are fifteen in each set. The sets of books are circulated from one school to another, each school being allowed to keep a set of books for two or three weeks. Until 1933-34, the sets of books were kept in each school for two weeks, after which the time limit was extended to three weeks.

During the first year the teachers were made responsible for getting the plan started in their respective schools. They saw to it that the school joined the movement and also secured the necessary money from the board to pay the fee. The teachers are still responsible for entering their school in the plan, but the boards now pay the fee to the county superintendent direct. Twenty-two schools were entered the first year, and it proved so satisfactory that the next year there were thirty-six schools entered. Since that time, between forty-six and fifty schools have been associated with the plan each year.

Schools Receive 150 Books a Year

In order to make the plan elastic and take care of more schools, four copies of each book have been purchased, and the books are made up into fifty-six sets, which make four circuits of fourteen sets each. The sets are put into circulation in October, and each school has access to about ten sets a year. This gives each school access to about 150 books for the $5 fee.

At first the sets were sent to the next school in the circuit by the teacher of the school, she standing the expense. This method was changed last year and now the county superintendent changes the books once every three weeks. This gives the superintendent an up-to-date check on the books, and also gives him an opportunity to keep in close touch with the various schools in the county.

Each set of books is packed in a corrugated board box, with lids extending completely over the box for protection. The identification number of the set is stamped on the outside of the box, and also on the front page of each book in the set. On the inside of one lid of the box is given the names of the books in the set, and the opposite lid of the box contains a set of instructions for use of the books.

The books are numbered by the Dewey decimal system, the number being placed on the outside in white ink, and also on the card in the back of the book. On the back of the book, at the top, as it sets on a shelf, is written in white ink the class and grade for which the book is best suited.

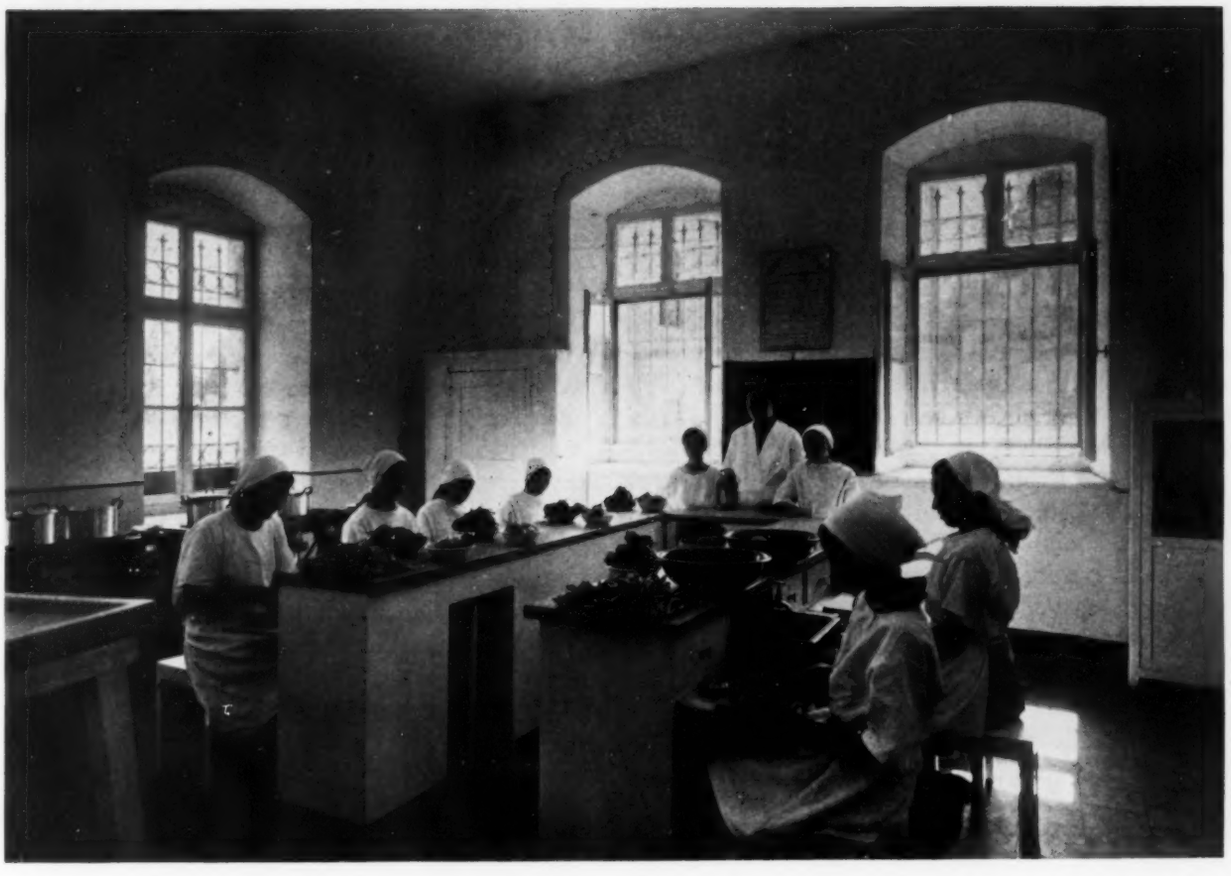
The teachers report that the books are read by the pupils. Teachers who have some of these books in their own school libraries say the books belonging to the circulating library are read more than the books in the school library. One reason given for the greater use of the circulating books is that the children know they have only two or three weeks in which to read the books and so go right to work on them. The condition of the books at the end of one or two years of service shows that they are really used. Each year it is necessary to replace the more popular books, and only a few of the books last longer than three years.

After school hours, the children are often seen to rush up to the sets of books and make their selections as soon as the box is opened. In many places the superintendent has been forced to wait for the teacher and children to collect the books before taking the set to the next school, because of the fact that some children were still reading the books. This happens despite the fact that the teacher knows what week the books are to be changed.

Plan Has Filled Important Need

It is true there are some objections to the plan, but improvements have been made each year in an effort to eliminate the objectionable features as much as possible. It would be more satisfactory if each school could have all these books in its own library. This plan, however, has filled an important need excellently in the county during the depression years, and the children have had access to 150 books which they otherwise would not have had a chance to read.—CECIL JENKINS, Superintendent of Schools, Andrew County, Savannah, Mo.

If you have practical suggestions that might help other school administrators The NATION'S SCHOOLS will be happy to have them for inclusion on this page



Lunch System in Palestine Teaches Cooking

By SARAH BROMBERG-BAWLY
Chief Dietitian of the Hadassah Medical Organization

Nineteen schools in Palestine are conducting a school luncheon project with marked success. In these schools luncheons are being prepared and served as part of the course in cookery. Details of the experiment, which has been going on for three years, are recounted for the benefit of school dietitians and others responsible for school luncheon systems in America

PALESTINE'S school luncheons project comprises nineteen schools. In these schools luncheons are served, the preparation of which is made the occasion for teaching cookery.

This project, initiated in 1926 on a small scale by the Hadassah Women's Zionist Organization of America, has since been expanded from year to year. By far the greater part of the funds is still provided by Hadassah, but efforts to secure larger contributions from the parents of the children fed at the luncheons have been fairly successful. When new schools are drawn into the school luncheons system they are usually required to cover the cost of the food, by persuading the parents to pay, so that Hadassah need provide only the teacher's salary and the cost of organization and supervision.

In part of the schools the cooking is done collectively, that is to say, eight or ten pupils prepare all the food and cook it in a few large pots. In ten of the schools, however, the cooking is so individualized that the preparation of the luncheons is fully utilized for the teaching of cookery. This

experiment, which has now been conducted for about three years, has proved so successful that certain details are worthy of note.

The number of children fed in each school varies from 80 to 240. In a school in which 80 children are fed the preparation of the luncheons is divided among eight pupils, so that each has to prepare a complete meal for ten persons from beginning to end. The advantage of this individualization of the work over the collective system is that much better training is given in composition of balanced meals; calculation of quantities needed per person and per family; economy of foodstuffs and preparation of meals within certain budget limits; correct use of left-overs; saving time during preparation of meals by proper planning; keeping work table and equipment spotlessly clean; assuming complete responsibility for the preparation of a meal for a family, and serving food in a pleasing manner in accordance with the particular tastes of the persons to be served.

Two and One-Half Hours Allowed to Prepare Meal

The organization of the day's work in the school kitchens is as follows: At 7:30 one pupil arrives with the teacher and places the foodstuffs on each work table. At 8 o'clock the other pupils—four from the seventh and four from the eighth grade—enter the kitchen, while two pupils from the sixth grade begin to clean the dining room and to lay the tables.

The eight pupils in the kitchen, after washing hands and putting on their white aprons and caps, sit down, each at her own place, and the teacher explains how each course is to be prepared, and decides in consultation with the pupils which is to be the first in the order of preparation. The quantities for each dish for ten persons are listed on the blackboard, but the method of preparation is not described there, so that the pupils must listen attentively to the teacher's instructions. Each pupil has at her disposition only two burners on a kerosene stove, so that thoughtful planning is needed in order to complete the cooking of three or four dishes within the allotted time.

The complete meal is ready at 10:30 a.m., so that, including the verbal instruction, 2½ hours are available for the preparation of a complete meal for ten persons. This strict time limit provides the teacher with a good opportunity for emphasizing the importance of economical use of time.

At 10:30 this group of pupils with the two pupils who have laid the tables go with their teacher to the dining room for lunch. The teacher selects the pupil who has worked best in all respects as the one whose meal will be eaten by this group. This is considered a great honor. These ten pupils are then ready to serve the large number of children who come to lunch at 11 o'clock. Of this cooking group six pupils then wait on the tables, two wash the dishes, and two wash the cutlery.

By 12 o'clock the kitchen and dining room have been tidied up. After each pupil has put in order her own cupboard and drawer, they all sit down for a quiet half hour with the teacher. First, they copy the quantities listed on the blackboard and then they write down the preparation of each dish as they remember the process. One reads aloud what she has written and the teacher makes any necessary correction. By the next day the pupils must have copied the whole recipe into clean notebooks. Mechanical dictating and copying of recipes are thus avoided. By stimulating the pupils' attention to the teacher's instructions and to actual work a more thorough understanding of the how and why of preparation is obtained. At about 12:30 everything is finished so that pupils may go back to their classrooms for the last two periods.

Each group of pupils comes to the kitchen on five consecutive days of the week. On Friday no luncheons are prepared since the schools close early on that day. Each pupil's turn comes again in about two months, so that in all each works in the kitchen approximately four weeks in each year, both in the seventh and the eighth grades.

Work during five consecutive days gives the teacher an opportunity to train and influence the pupils thoroughly and to make them understand the connection between the planning of menus from one day to the next. Although pupils who work in the kitchen under this arrangement for a whole week are absent from about twenty lesson hours, the schedule is so arranged that they are able to make up for this at the end of the week.

All Equipment Is Close at Hand

As the seventh grade pupils have to begin preparing complete meals from the day they enter the seventh grade, it has been found necessary to give them a number of introductory cooking lessons while they are still in the sixth grade in order to acquaint them with the principles of cookery and the handling of ovens and various utensils.

The kitchen is equipped to expedite the work. Pupils sit while they work. All the needed equipment is at hand so that without getting up they can reach sink, garbage can, utensils, flour, sugar, salt and prepared foodstuffs.

They work on boards drawn out over their knees, each board being attached between the pupil's own drawer and cupboard. Stoves are behind the pupils' backs at a distance of about two meters (6 1/3 feet) so that pupils do not suffer from the heat. The sink on wheels between every team of

two girls is used only for washing small things and vegetables during the preparations. Dishwashing after the luncheon is done at one large sink. The teacher has a desk at the end of the two long tables, from which she can give instructions.

Although I have dwelt in much detail on the individual system that has been introduced in ten of the nineteen schools where luncheons are served, the educational aspects even in the collective system are well developed and showed satisfactory results at the final examinations, even among the boys. We are working at two boys' schools, six mixed schools and eleven girls' schools.

TYPICAL LUNCHEON MENUS

Vegetable soup	Spinach salad
Stuffed eggs	Cheese balls
Tomato salad with mayonnaise	Vegetable marrow with tomato sauce
Chocolate pudding	Floating island
Fish in parsley sauce	Mixed vegetable salad
Salad of cabbage and carrots	Fish balls
Mashed potatoes	Noodles
Cocoa	Cocoa
Cake with nut filling	
Lentil soup with vegetables	
Tomato stuffed with cheese, with mayonnaise dressing	
Caramel pudding	

In order to improve teaching in a number of schools where for financial reasons we have been unable to introduce the individual system, we have installed small model kitchens next to the large school kitchens. Here a pupil of the eighth grade has to prepare, without help or instruction, a complete meal for four persons (a parent, a teacher, a friend and herself). In this way the pupils, on five or six days during their last school year, get an opportunity to do unsupervised cooking, and thus receive the finishing touch in their training.

The same teachers who teach cooking daily in the school kitchens also teach the theory of nutrition in the classrooms of the seventh and eighth grades one hour a week, and also give some introductory lessons in the sixth grade. In this two years' course the teacher treats the general foundations of nutrition, concentrating in the last part of the second year upon such special phases as appetite problems, household economy, food budgeting and food habits of different countries and different communities. The teacher always takes particular pains to tie up her theoretical instruction with the practical work.

When pupils are about to leave the primary schools, they must pass both theoretical and practical examinations. The practical examination requires an adequate menu to be composed within specified budgetary limits and independent preparation of the meal.

The cost of the luncheon is fixed at 12 mils (about 6 cents) per child per day. The composition of the meal must come up to a certain standard and must therefore contain 2/3 glass of skim milk, ½ egg (or cheese), 120 gr. vegetables, 60 gr. fruit, 70 gr. fish once a week, 10 gr. butter and oil, bread *ad libitum* (an average of 120-150 gr. is used) and various cereals.

These quantities provide approximately one-third of the daily requirement of calories, protein, minerals and vitamins of school children. Budgetary considerations have not permitted an increase of these quantities up to one-half of the standard daily ration, although this would be desirable in view of the inadequate breakfasts and suppers the children get at home.

Teachers have developed such skillful menu planning that even with this limited budget varied menus are obtained, as can be seen from the typical menus shown in the accompanying table.

In order to be assured that our staff is thoroughly trained and adequately prepared, we have found it necessary to train our own future cooking teachers. For this purpose the students of the three teachers' seminaries are being taught cooking and nutrition during their last two or three years. In addition to this training, those who show a special aptitude for the work are required to give trial lessons in cooking in one of the elementary schools while the rest of the group looks on. The mistakes of the student-teacher are afterwards discussed with the whole group.

A few students from this group are given the opportunity to attend an intensive summer course in cookery and nutrition after they have been graduated from the seminaries. From this thoroughly prepared group new teachers are chosen.

Summer Course Held for Teachers Each Year

After a teacher has been appointed, her training is continued by close supervision and criticism. In the general monthly meetings of cooking teachers, mistakes observed in their work are discussed and their monthly reports on menus, expenditures, quantities of food used and theoretical lessons are criticized by the chief dietitian of the school luncheons. All teachers receive every year a short summer course in nutrition, cooking chemistry, physiology, pedagogy and related subjects in order to keep them in touch with new developments. Thus, by constant supervision and constructive criticism, we have succeeded in training a reliable staff of cooking teachers who conduct the work satisfactorily.

In order to complete the picture, mention should be made of the fact that we are supervising and also subsidizing in part the food service to 1,860

children in forty-three kindergartens in Palestine. Here the main purpose is the feeding of the children, while the educational aim consists only in inculcating good food habits and table manners.

Three years' experience with luncheons in nineteen Palestinian schools, in which 1,489 children are fed and 1,917 are taught cooking and nutrition, has led to the following conclusions:

1. It is possible and extremely desirable that the preparation of luncheons be exploited chiefly for the sake of the educational aim, namely, the teaching of cookery and nutrition.

2. It is possible to make the preparation of the luncheons the occasion for teaching cooking under the collective system when no more than 200 children are to be served. In that case a small model kitchen should be annexed to the main kitchen.

3. This purpose is still better achieved under the individualized system in an adequately equipped kitchen. Under this latter system luncheons for no more than 150 children can be prepared without exceeding the aforementioned time limit, ten pupils cooking for fifteen children.

4. In case the number of children to be fed greatly exceeds 150, it would be desirable to have one dining room for 150 children served from the individual system kitchen, the rest of the children being served from a separate kitchen with a trained staff.

5. It is possible to serve a varied and attractive luncheon at a cost of 12 mils (6 cents) per child.

6. The serving of a one-menu luncheon has the advantage over the "free choice" (cafeteria) system, since it assures an adequately balanced menu for all children at a minimum cost; it teaches the children to eat and like every kind of food without exception, and it simplifies the preparation and service of the meal.

7. The teaching of cookery and of nutrition by the same cooking teacher has the great advantage of linking the two subjects together and stimulating the interest of pupils by showing their interdependence.

8. In order to ensure the success of a chain of school luncheons conducted by a central organization, it is necessary either (1) to give cooking teachers additional training especially adapted to this chain of luncheons or (2) to train cooking teachers through the central school luncheons organization in order to adapt their training to the needs of the system.

9. It is desirable to appoint as cooking teachers only graduates of teachers' seminaries who have had some sort of general pedagogical training.

Low Cost Plate Luncheons Meet Three Needs

By HAZEL P. ROACH

Supervisor of Home Economics, Board of Education, Grand Rapids, Mich.

THREE services in low cost menus have been used with marked success in the public schools of Grand Rapids. These are (1) high school cafeteria luncheons, (2) orthopedic school luncheons, and (3) emergency nursery school luncheons.

For the last three years the home economic department through its high school cafeteria service has offered low cost plate luncheons at ten and twelve cents. Following are three typical ten-cent luncheons and three twelve-cent luncheons that are being served successfully to the pupils.

Ten-Cent Luncheons

1. Bowl of creamed soup and crackers (sandwiches brought from home-welfare foods), raw carrot sticks or celery, baked apple and cookie.

2. Bowl of beef vegetable soup with cracked wheat and crackers, lettuce and carrot wholewheat sandwich or milk, rice custard with dried fruit and whole milk.

3. Macaroni and cheese with tomatoes, celery, orange or banana, ½ pint milk.

Twelve-Cent Luncheons

1. Creamed eggs on mashed potato, buttered beets, milk or cocoa.

2. Cream of tomato soup and crackers, buttered turnips and carrots, apple brown Betty with whole milk.

3. Baked beans, cabbage, apple and raisin salad, ginger bread, milk.

We learned early that children from families on welfare relief as well as those on the borderline of relief had brought sandwiches to school as a part of the daily lunch. We offered a choice of food to supplement sandwiches and to maintain a good balance.

The cook's wages in our orthopedic school were paid by the state. Because of this fact, the average daily cost of the food for this group during 1933 and 1934 was only nine cents. Five typical menus

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†*Excerpts from letters in our files. Names given on request.*

Palatable, well balanced noon meals were served in the emergency nursery schools at an average cost to the child per meal of three and a half cents.

offered orthopedic school children are given in the following paragraphs:

1. Egg à la goldenrod on toast strips, buttered carrots, lettuce sandwiches, gingerbread with lemon and pineapple sauce, milk.

2. Beef and vegetable stew with cracked wheat (made of potatoes, celery, carrots, turnips, cabbage), steamed apples, plain sandwiches, chocolate blancmange, milk.

3. Turkish pilau, vegetable and fruit gelatin salad, creamed cheese, pickle and lettuce sandwiches, molasses drop cookies, milk.

4. Lima beans with tomato and bacon, five-minute cabbage in milk, Boston brown bread with raisins, junket with pineapple cube compote, milk.

5. Cheese fondue, cabbage, carrot and pineapple salad, egg and olive sandwiches, ice box cookies, cocoa.

The Whole Family Benefited

In our nursery schools palatable, well balanced noon meals were prepared from welfare supplies at an average cost to the child per meal of three and a half cents. Not only did the health of the children improve, but the whole family benefited through adult education classes which paralleled the nursery school program. Such carry-over into the home provided improved marketing ability and greater planning and balancing of menus on a low food income.

Following are typical examples of these various menus.

1. Escalloped peas and carrots with crisp bacon crumbs, buttered green beans, peanut butter sandwiches, fruit cup, milk.

2. Creamed chipped beef on toast cubes, buttered beets, chopped raisin and celery sandwiches, caramel pudding, milk.

3. Creamed salmon on rice, buttered carrots and turnips, lettuce sandwiches, apricot sauce, milk.

4. Creamed eggs and peas on toast cubes, escalloped tomatoes, apple butter sandwiches, rice pudding with raisins, milk.

It should be explained that at first servings suited to the age of the child were given, after which the child could choose the entire meal again or make any choice of food desired.

School Cafeteria Posters Help Pupils to Select Healthful Foods

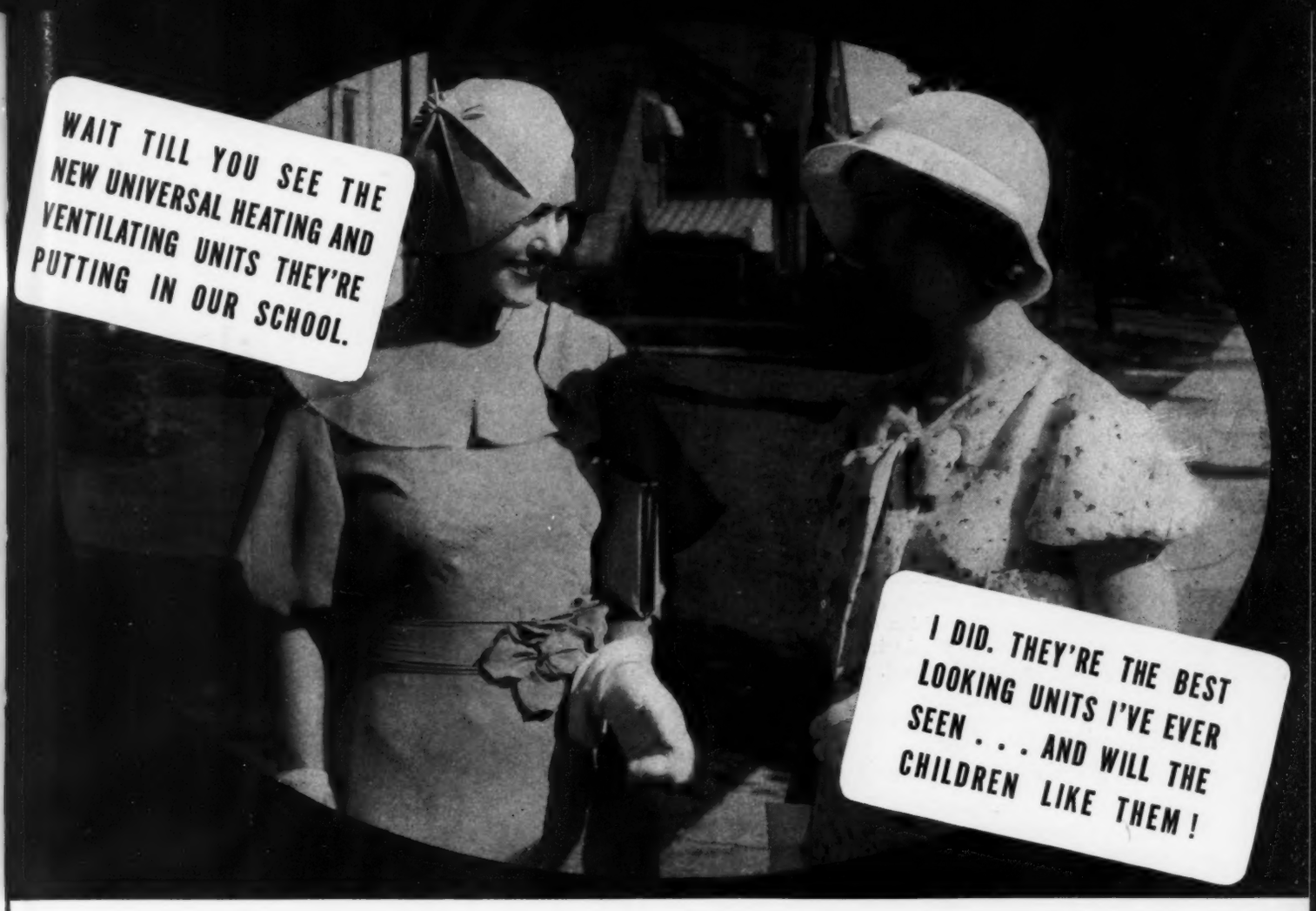
When pupils gather in Baltimore school cafeterias to select their midday lunches, prominently displayed nutrition posters help them to select healthful foods.

"One of Health's Requirements—a Good Breakfast, a Good Lunch, a Good Dinner," is the heading of one poster. Below are given simple menus for a school lunch complete and for supplementary foods to use with a lunch brought from home. Prices are given for the foods selected. In this particular case each menu costs 8 cents.

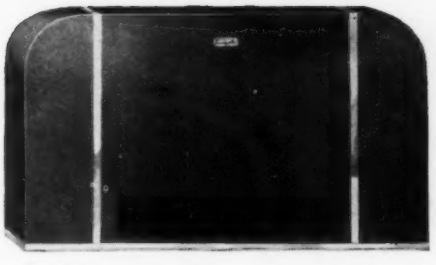
Another poster headed "Steaming Hot Lunches for This Rainy Day" lists four menus, each meal costing 15 cents. The menu is arranged in a circle representing a plate, while in the center is displayed the daily "hot plate" for 10 cents.

In hot weather a poster headed "Healthy and Cool" lists five suggestions for meals costing from 14 to 25 cents. Still another poster declares "Health Is Wealth" and portrays the virtues of spinach as an iron food; of milk as a builder; the daily requirements of fruits, vegetables and milk; the value of tomatoes, and the composition of apples.

Neva G. Lewis, dietitian in charge of the cafeteria at Forest Park Senior High School, is largely responsible for the Baltimore poster program.



OF COURSE, both children and teachers will enjoy the new Universal Duo-Luxe Heating and Ventilating Units. Their modern-looking, streamlined design "dresses up" any schoolroom, and the efficient trouble-free manner in which they both heat and ventilate, makes them an investment of unquestioned soundness.



The units—the most beautiful of their type in the world—are controlled by dual thermostats placed inside the unit and elsewhere in the room. The result is that air-stream and room temperatures are blended, drafts abolished, and warm, healthful air delivered safely and evenly.

The new Universal Heating and Ventilating Units are backed by American Blower Corporation's 50 years of experience in air conditioning and air handling. That means that every Universal Duo-Luxe installation is scientifically correct. And, too, there is a size for every schoolroom need. Mail the coupon today to inform yourself about really new heating and ventilating performance.

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MODERN PRODUCTS *for the* SCHOOL

New Noise Excluding Steel Windows

A new type of noise excluding steel windows has been announced by Truscon Steel Company, Youngstown, Ohio. The Silentaire Windows are a development from the "Silentaire" manufactured by the company. The "Silentaire" is a combination window muffler and ventilator designed originally for attachment to existing steel or wood windows. The newly developed Silentaire Windows, it is claimed by the manufacturer, provide a condition of quietness similar to that obtained with an ordinary window tightly closed.

Low Priced Organ Now Available for Schools

Schools should be well equipped in the way of musical instruments and in many cases this equipment will include an organ. There are many uses for this instrument in the school. For example, it may be used to augment the school orchestra and also for practice purposes by pupils.

In the past, the high cost of organs has prohibited the majority of schools

from possessing such an instrument. This handicap is partially overcome, however, with the announcement recently of an organ designed especially for schools that sells for less than $1,500. The manufacturer of this low priced instrument is the Estey Organ Corporation, Brattleboro, Vt.

Fundamentally, the instrument is a reed organ, but its tone quality, volume, action and appearance are that of a pipe organ. New reed cells develop greatly increased volume, and the instrument, it is said, compares favorably with a pipe organ costing several times the price. The electromagnetic action provides something new in reed organs — the touch of the modern pipe organ — which is not affected in any way by the use of couplers. The accessories are those which are regularly furnished with a pipe organ console. The organ is equipped with a 32-note pedal board, balanced swell and balanced crescendo pedals.

There are, in reality, twelve distinct sets of reeds in the organ. It has a complete list of couplers. The dimensions of the organ are identical with that of the modern pipe organ.

Floor Finish Designed to Lower Maintenance

A new finish for floors of wood, terrazzo, cement, cork and linoleum, designed to reduce maintenance costs by eliminating the necessity of scrubbing, has been announced by American Floor Surfacing Machine Co., Toledo, Ohio.

Pentra-Seal, according to the manufacturer, is easily applied and dries over night. It seals the surface and prevents dirt from getting into the floor. Dust and dirt can be removed from the floor with a brush or broom and an occasional buffing with a polishing brush. The product comes in a variety of colors. It is waterproof and will resist ink and stains, according to the manufacturer, and is adaptable for use on school desks and other wood surfaces that need protection.

Wall Washing Machine Cuts Cleaning Costs

Dirty walls and ceilings have no place in the school. They are insanitary, they leave a bad impression with both pupils and visitors and they are likely to lead to a certain slovenliness on the part of employees charged with keeping the institution clean.

A new machine for washing walls and ceilings has just been placed on the market to take the place of the hand method of washing, which is unsatisfactory in many respects. This machine, which is extremely simple in design and operation, is manufactured by the American Systo-matic Company, Fidelity Building, Cleveland. It is as noiseless as an electric fan and may be operated in close proximity to classrooms without causing annoyance. In using the machine the furniture need not be covered with drop cloths as there is no spilling or dripping of water or soap. Five gallons of clean water will operate the machine for a full day and the water is kept warm as long as the machine is in operation.

Tests conducted by the manufacturer indicate that the machine makes

it possible to have clean walls and ceilings at all times and to cut maintenance cost at least 50 per cent. The manufacturer also points out that the machine uses considerably less cleaning powder than the pail and sponge system of washing.

New Trade Pamphlets

Westinghouse Electric & Manufacturing Co.—"Cooking and Baking by Electricity," a commercial cooking manual, makes available helpful reference data for anyone interested in the use of electricity for commercial cooking purposes. The manual was prepared after many years of research by Westinghouse Electric & Manufacturing Co., Mansfield, Ohio. A copy may be had by writing the company. Westinghouse has also released an attractive catalogue describing its line of electric cooking and baking equipment for commercial use. Also shown in this catalogue is the company's list of pantry and counter equipment.

Ric-wiL Company—"Central Heating With Ric-wiL Conduit for Colleges, Hospitals and Institutions" is the title of a bulletin recently released for distribution by the Ric-wiL Company, Cleveland. The bulletin describes the savings and advantages made possible by central heating, and illustrations are used throughout.

THE NEWS OF THE MONTH

Many School Laws Passed in Year 1933

Practically every state gave attention during 1933 to legislation affecting schools, it was revealed by the National Education Association, in an educational research service circular issued as No. 5, for 1934. Additional revenues for schools, increased state aid, and reorganization of administrative agencies, resulted in several states. A few states increased school budgets or made appropriations at statutory figures. Other states suspended salary schedules, abolished important positions, and discontinued valuable services. High spots of 1933 state school legislation, as summarized by the National Education Association, are these:

Alabama pledged net proceeds from new personal and corporation income taxes to refund state obligations that include $11,000,000 for education.

California will raise from state sources of revenue the amounts formerly required for school support from county sources.

Indiana kept all its schools open by providing that county school corporations shall receive three-fourths of the proceeds remaining from a new tax on intangibles, after 10 per cent is paid to the state general fund.

Iowa strengthened its teacher certification laws, differentiating certificates according to training and position.

Action by Other States

Michigan set aside for equalization purposes 10 per cent up to $15,000,000 of the balance from a new gross retail sales tax, after $31,700,000 is set aside for other state purposes.

North Carolina provided for a $16,000,000 annual appropriation to operate schools for eight months on state standards.

Ohio will apportion 96 per cent of the revenue from a tax on intangibles among schools according to average daily attendance.

Pennsylvania took steps to provide $5,000,000 for financially embarrassed school districts, through a tax on alcoholic beverages.

South Carolina assumed for a six-month term the cost of public school teachers' salaries, up to certain maximums. The state also earmarked for school purposes $893,000 of the proceeds from the personal income tax.

South Dakota earmarked for school purposes 50 per cent of the gross revenue from a new gross income tax.

Tennessee authorized a bond issue from which the state paid to counties approximately $8,000,000 owed them for schools.

Virginia restored to the school budget $150,000 to prevent school closings up to the January, 1934, meeting of the general assembly.

Washington's new "Barefoot Schoolboy Law" allowed an appropriation which, when taken with interest on the permanent fund and other revenue, will provide $0.25 for each day's actual elementary school attendance and slightly larger amounts for attendance in special and higher divisions.

West Virginia adopted a county-unit system of schools, consolidating all magisterial, subdistricts and independent districts under county boards of education.

Fourteen states ratified the federal child labor amendment. Seven states made provision for surveys of state school finance or state tax systems.

New Jersey to Hold Children's Science Fair

Actuated by a desire to bring before the public the achievements of children in the fields of agriculture and natural science, a Children's Science Fair will be held in Trenton, N. J., in January, 1935, under the auspices of the Departments of Agriculture and Public Instruction of New Jersey. The purpose of the fair is to foster a scientific interest in agriculture, gardening, nature study and conservation.

Detroit Board of Education Votes to Restore Pay Cuts

The board of education, Detroit, at a special meeting on June 5 voted, upon the recommendation of Supt. Frank Cody, to restore the "ten and ten" percentage pay cuts of teachers and other employees and to reestablish the regular salary schedules that were suspended three years ago. The restoration of the "ten and ten" percentage cut will add $1,400,000 to the budget, providing for one step in schedule increasing, and will cost $350,000 more next year.

Five thousand professional and 2,000 nonprofessional employees are affected by the action of the board. The restoration of the cuts was made possible by the change in industrial conditions which have been quickly reflected in the reduction of tax delinquency in Detroit. It is also expected that the school term will be increased from nine to ten months again in 1934-35.

American Education Week Set for November 5-11

"Educating for Tomorrow" has been chosen as the theme of the fourteenth annual American Education Week scheduled for November 5 to 11.

The purpose of American Education Week is to bring parents and other citizens together with teachers to formulate the objectives and to appraise the results of education. Citizens are invited to visit and inspect the work of the schools so that they may participate intelligently in important decisions related to educational and social progress.

American Education Week programs will be sponsored as usual by the National Education Association, the United States Office of Education and the American Legion. Other national organizations whose memberships total millions will cooperate.

Old Style Exams Are Best, Psychologist Finds

Pupils who are given the old type of "essay" examination, in which they are required to answer questions put in general terms, learn their courses more thoroughly, remember them longer and actually study more economically than pupils who are given the newer types of tests which call for short answers to specific details, a survey made by Dr. George Meyer of the University of Michigan psychology department reveals.

The essential superiority of the essay or "general recall" type of examination over the types demanding short answers to picked details, lies in the way in which pupils study for the tests, rather than in the tests themselves, Doctor Meyer found from a survey of 180 university students. Cramming the mind with unorganized detail is poor learning policy, he states.

THE NEWS OF THE MONTH

Movies Used to Aid Students in "Speech" Work

Students in the fundamental speech classes of the University of Denver now have the opportunity of seeing themselves in action as well as hearing recordings of their voices.

This has been made possible through the recent purchase of a moving picture camera, projector and lighting equipment to be used in the speech classes so that students may study their posture, gestures and movements while speaking, thus helping in the teaching of graceful bodily action.

However, according to Prof. Elwood Murray, head of the speech department of the university, students are, as yet, timid about appearing before the camera and suffer from camera fright.

Plans Summer Course for Superintendents

Tentative plans are being made by C. A. Howard, state school superintendent for Oregon, to hold a short course for county school superintendents this summer. The course will be held in cooperation with the extension division of the Oregon state system of higher education and the county school superintendents' association.

Industrial Education Teachers of Indiana Meet

More than 500 industrial education leaders of Indiana gathered at LaFayette recently for the third annual convention of the organization. The LaFayette public schools and Purdue University were hosts to this enthusiastic young organization.

The topics discussed included aviation, electricity, machine shop, wood shop, sheet metal, drafting and printing. Specialists from the schools and industries reported research work being done in various parts of the state. Much of the time of the sectional meetings was given to the discussion of the future development of industry which represented problems centering around the selection of subject matter and methods of presentation.

Edward C. Elliott, president, Purdue University, was toastmaster at the banquet on Friday evening, and Emory T. Filbey, dean of the faculties of the University of Chicago, spoke on the subject of "Worthwhile Economies in Education."

Harry E. Wood, director of vocational education, Indianapolis, outgoing president, was succeeded by Willard Hill, Logansport. Prof. H. G. McComb of Purdue University was retained as executive secretary and treasurer. The executive council voted to hold the fourth annual convention at Terre Haute early in April, 1935.

Report Tells Michigan's Goals in Education

The following statement of "The Goals of Public Education in Michigan" has just been reported to the profession by the Michigan Educational Planning Commission, an extra-legal interest group that is planning the reorganization of public education in Michigan under the leadership of Dr. Paul F. Voelker, superintendent of public instruction. The goals were prepared by a committee, of which M. R. Keyworth, superintendent of schools, Hamtramck, Mich., was chairman. The commission's statement follows:

In order to preserve and improve our democratic civilization, and to provide educational advantages for all, in accordance with the American principle of equality of opportunity, the state of Michigan has the right and the obligation to provide a system of public education at public expense. In such a system it should be the aim to seek to achieve the following nine goals at the approriate levels of the public school system—elementary, secondary and higher:

1. To cultivate a deep regard for democracy and an intelligent appreciation of democratic institutions.
2. To develop those qualities of character which are of special significance in a democracy.
3. To develop the willingness and the ability to cooperate effectively in a democratic society.
4. To develop the ability to use the most effective and reliable methods in searching for truth.
5. To develop the effective use of the fundamental knowledge and skills required by all.
6. To ensure an abundant social and individual life in accordance with each individual's capacity and ambition.
7. To provide training in the specialized and professional services which are requisite for society.
8. To provide for the enrichment of adult life.
9. To plan for the continuous appraisal and readjustment of the educational program to fit new conditions.

Coming Meetings

Aug. 1-3—Superintendents' Conference, State College, Pa.
Sept. 3-6—American Public Health Association, Pasadena, Calif.
Sept. 24-26—New York State Council of City and Village Superintendents, New York City.
Oct. 5-6—Colorado Education Association, Durango.
Oct. 8-11—National Council on Schoolhouse Construction, Washington, D. C.
Oct. 10-11—Education Congress, Harrisburg, Pa.
Oct. 15-16—Washington Education Association, Spokane and Walla Walla.
Oct. 18-19—Indiana State Teachers Association, Indianapolis.
Oct. 18-19—Washington Education Association, Wenatchee and Yakima.
Oct. 22-23—Washington Education Association, Centralia and Longview.
Oct. 24-27—Nebraska State Teachers Association district meetings: Dist. 1, Lincoln; Dist. 2, Omaha; Dist. 3, Norfolk; Dist. 4, North Platte; Dist. 5, McCook; Dist. 6, Chadron.
Oct. 25-26—Washington Education Association, Bellingham, Seattle and Tacoma.
Oct. 25-27—West Virginia State Education Association, Parkersburg.
Oct. 25-27—Utah Education Association, Salt Lake City.
Oct. 26-27—Maryland State Teachers Association, Baltimore.
Nov. 1-3—Kansas State Teachers Association, Kansas City, Topeka, Salina, Hays, Dodge City, Hutchinson, and Chanute.
Nov. 1-3—Wisconsin Teachers Association, Milwaukee.
Nov. 1-3—Minnesota Education Association, Minneapolis.
Nov. 8-10—Arizona Teachers Association, Phoenix.
Nov. 8-10—Missouri State Teachers Association, Kansas City.
Nov. 8-10—Colorado Education Association, Denver, Pueblo and Grand Junction.
Nov. 25-28—South Dakota Education Association, Huron.
Nov. 27-30—Virginia Education Association, Richmond.
Nov. 29-Dec. 1—Texas State Teachers Association, Galveston.
Dec. 5-8—American Vocational Association, Pittsburgh.
Dec. 19-21—New York State Association of District Superintendents, New York City.
Dec. 26-28—Pennsylvania State Education Association, Harrisburg.

IN THE EDUCATIONAL FIELD

Southern States

DR. JULIAN ALVIN CARROLL CHANDLER, president since 1919 of the College of William and Mary, Williamsburg, Va., died recently in Norfolk. Doctor Chandler was sixty-one years old and had been ill for several weeks.

EDWIN C. WADE has been named president of Bluefield College, Bluefield, W. Va., succeeding J. TAYLOR STINSON.

FRANK H. MILBURN is the new superintendent at Gravette, Ark.

A. L. HENDRICK has been appointed superintendent at Liberty, Miss.

DR. FRANK E. JENKINS, president of Bowdon College, Bowdon, Ga., died on June 7.

C. P. CRUDUP has been appointed head of the school system at Claremore, Okla.

DR. JOSEPH A. SERENA, president of Bethany College, Bethany, W. Va., has resigned, effective in August.

Eastern States

HYMAN ALPERN has been named principal of Evander Childs High School, New York City.

ROBERT BARNER has been appointed superintendent of schools, Rochester, Pa.

HERSCHEL S. LIBBY, superintendent of schools at Southington, Conn., for the past ten years, has been elected head of the school system at Irvington, N. J., succeeding R. L. SAUNDERS, superintendent for the past fourteen years.

CHARLES WOLBACH of Freeland, Pa., has been appointed superintendent of schools at Rumey, N. J.

RICHARD MOTT GUMMERE, Haverford, Pa., headmaster of William Penn Charter School, Philadelphia, and president of the Headmasters' Association, has been named chairman of the committee on admission of Harvard College.

BYRON S. HOLLINSHEAD, assistant director of Bucknell Junior College, Wilkes-Barre, Pa., has been appointed president of Scranton-Keystone Junior College and Academy, which will be opened in Scranton, Pa., in the fall.

WILLIAM H. MCILHATTAN, formerly supervising principal, has been named superintendent of schools at Somerset, Pa.

ALLEN BACON has been named superintendent of schools at Wilkes-Barre, Pa.

FREDERICK J. MOFFITT, superintendent of schools at Hamburg, N. Y., since 1927, was given the degree of Doctor of Letters, *honoris causa*, by Hobart College in June.

JAMES B. WELLES, superintendent of schools, Roslyn, N. Y., has been appointed principal of the State Normal School at Geneseo, N. Y., effective July 1. Mr. Welles succeeds DR. WINFIELD H. HOLCOMB.

FRANK M. HAISTON has been appointed superintendent of schools at Pottstown, Pa., succeeding F. HERMAN FRITZ.

WINN L. TAPLIN, superintendent of the Rutland-Windsor West school district in Vermont, has been named head of the Castleton-Fair Haven district. CLAYTON L. ERWIN is the new superintendent in the Rutland-Windsor West district.

RAYMOND ANDERSON has been chosen supervising principal at Essex Junction, Vt., and FRANK O. STILES, now supervising principal at Hinesburg, Vt., will succeed Mr. Anderson at Highgate, Vt.

PHILIP CRANE of Lyons Falls, N. Y., has been elected supervising principal at Booneville, N. Y., succeeding DAVID G. ALLEN, who goes to Lake Placid, N. Y.

DR. JOSEPH T. GRIFFIN, principal, P. S. 205, Brooklyn, N. Y., died recently at his home in St. Albans, Long Island. Doctor Griffin was formerly principal of P. S. 114, New York City.

CAPT. CALVERT K. MELLEN is retiring as principal of Lafayette High School, Buffalo, N. Y.

A. JEROME GOODWIN, principal of Lamoille Central Academy, Hyde Park, Vt., has been named principal of Memorial High School, Arlington, Vt. RUPERT J. SPENCER is the new principal at Hyde Park.

HARRY F. SEARS has been elected headmaster of Somerville High School, Somerville, Mass., succeeding JOHN A. AVERY, resigned.

M. L. KEIM has been appointed supervising principal of schools, Mercersburg, Pa.

MERWIN B. FORBES has been elected principal of People's Academy, Morrisville, Vt., to succeed RALPH E. NOBLE, who has resigned to accept another position.

DR. WILLIAM A. WETZEL will retire as principal of Central High School, Trenton, N. J., next February, after thirty-four years of service.

CARROL H. WHITE, superintendent of schools at Barre City, Vt., for nearly twenty years, died recently. Mr. White was an able school man and contributed much to the educational progress of schools in Vermont.

Middle Western States

ELMER M. WELTZEN has been elected superintendent of schools, Warren, Minn.

ARVEL G. CALDWELL has been appointed principal of Canton High School, Canton, Ill.

A. SCHULER is the new head of the schools in Swea City, Iowa.

HOLLIS MINER is now superintendent of schools at Montgomery, Mich.

T. I. CURTIS, superintendent of schools at Ottawa, Ohio, since 1926, has been named head of the school system at Waynesfield, Ohio.

J. C. TURNER has been elected superintendent of schools at French Lick, Ind.

WILLIAM F. WATERPOOL, for the past seven years superintendent of schools at Richland Center, Wis., has been elected head of the school system at Rice Lake, Wis. L. O. TETZLAFF is the new superintendent at Richland Center.

H. E. ZUBER, superintendent of schools at Chagrin Falls, Ohio, has been elected head of the school system at Struthers, Ohio.

ARTHUR ANDERSON is now superintendent of schools at Gowrie, Iowa.

JOHN H. FINLEY, superintendent of schools, Paulding, Ohio, has been elected head of the school system in

IN THE EDUCATIONAL FIELD

Paulding County, Ohio, succeeding A. F. PTAK. O. W. BUCHANAN is the new superintendent at Paulding.

J. THEODORE HESKET has been elected superintendent of schools, Dorchester, Neb.

THURLOW S. ROBE is the new head of the school system at Cumberland, Ohio.

GRACE ABBOTT, for thirteen years chief of the children's bureau and a federal child welfare worker under five presidents, resigned on July 1. Miss Abbott will become professor of public welfare administration at the University of Chicago.

HERMAN HOLMES has been appointed superintendent of schools, Luana, Iowa.

EARL C. BOYD has been named to succeed L. E. MICHAEL as superintendent of schools at Clinton, Ind.

RALPH BRANT is the new superintendent of schools at Vassar, Mich., succeeding T. M. CLAY.

L. R. FORTUNE has been appointed superintendent of schools, Bethesda, Ohio, succeeding F. L. MARIS.

C. J. KIELKAMP has been named superintendent of schools at Princeton, Wis., succeeding E. F. LANG, who has assumed the superintendency at Menomonee Falls, Wis.

F. S. BALL, formerly superintendent at Middlepoint, Ohio, has been appointed head of the school system at Dunkirk, Ohio.

CHARLES L. POOR, superintendent of schools at Traverse City, Mich., for the past thirteen years, has been appointed head of the school system at Eaton Rapids, Mich.

J. F. JAMESON has been elected superintendent of schools at Big Prairie, Ohio.

REV. CHARLES L. O'DONNELL, C.S.C., president of Notre Dame University, died recently after a long illness. REV. JOHN F. O'HARA, C.S.C., appointed vice president of the university last July, will serve the remainder of Father O'Donnell's term.

JOHN E. DAVIS is the new superintendent of schools at Pleasantville, Ohio, succeeding BERTHA UNCAPHER.

OLIVER G. FREDERICK, assistant superintendent of Detroit schools, in charge of personnel since 1914, died on June 18, after an illness of three months. Mr. Frederick spent forty years of service in the Detroit public schools.

CHARLES H. LAKE, superintendent of schools, Cleveland, received the honorary degree of doctor of laws at Ohio State University's recent commencement exercises.

Western States

CHARLES H. CAMPER, superintendent of schools at Chico, Calif., for the past twenty-eight years, died recently.

SILAS GAISER, superintendent of the Milton-Freewater (Oregon) schools, has been appointed superintendent of schools at Salem, Ore. JAMES M. BURGESS is the new superintendent of the Milton-Freewater school system.

DR. LEE PAUL SIEG, dean of the college, graduate school and school of education, University of Pittsburgh, has been chosen president of the University of Washington.

THOMAS M. HARDY, superintendent of schools at Ashton, Idaho, for the past seven years, has resigned to accept the superintendency at Lind, Wash. F. G. BRADY has been appointed superintendent at Ashton.

LEWIS B. AVERY, director of adult education in the public school system of Oakland, Calif., has retired after fifty-five years of continuous educational service. Mr. Avery will make a trip around the world.

C. BEAGLE has been named to succeed C. CRANE as superintendent of schools at Pinedale, Wyo.

DEXTER M. KEEZER has been appointed president of Reed College, Portland, Ore., and will take office in the fall. DR. NORMAN F. COLEMAN, former president, will remain with the college as professor of English.

E. G. FOSTER has been appointed superintendent of schools at Hailey, Idaho.

DEAN T. E. BOLTON of the University of Washington was the chief speaker at the recent conference on elementary education arranged by the State Normal School at Monmouth for school executives and teachers of Oregon. About a thousand persons were in attendance.

DONALD W. MACKAY, state rural school superintendent of New Mexico, has been elected president of Eastern New Mexico Junior College. GRACE CORRIGAN, who retired as rural school supervisor in 1933, has been reappointed.

Northwestern Elects Three New Trustees

Election of three new members to the board of trustees of Northwestern University was announced recently. The new members are: Bertram J. Cahn, to succeed Melvin A. Traylor, deceased; Bishop Ernest L. Waldorf, to succeed Charles H. Schweppe, resigned, and Harold H. Anderson, who becomes representative of the Northwestern University alumni association. John H. Hardin, who has been president of the board during the last year, was reelected to the office, and the following members whose terms expire this year were also reelected: Burt J. Denman, George W. Dixon, Paul H. Fesler, George P. Merrick, James F. Oates, and Charles H. Thorne. Mr. Cahn and Mr. Anderson, two of the newly elected members, are Northwestern alumni.

High School Curriculum Expanded in Rockford

Nine new subjects will be added to the senior high school curriculum in Rockford, Ill., when the 1934-35 school year opens. Contemporary literature, world literature, physiography, retail selling, business organization and management, aeronautics, machine trade drawing and home engineering for girls will be the new courses added to the curriculum.

Eleventh grade girls interested in understanding the selection, care and maintenance of home equipment and appliances may enroll in home engineering. Subjects to be studied will include electrical equipment, finishing and care of finished surfaces, selection and care of automobiles, architecture, and selection and care of furniture and refrigeration. A large registration is expected for this practical course.

THE BOOKSHELF

MENTAL HYGIENE OF THE SCHOOL CHILD. *By Percival M. Symonds. New York: The Macmillan Co.*, 1934. *Pp.* 321. $1.50.

Here is a simple, well organized and interestingly written book for teachers. It is adaptable both for training school courses and for independent use by principals and teachers in field practice. It should prove a special boon to teachers whose training did not include mental hygiene. Intelligent application of the materials presented would result in great improvement of the instructional process.

EVERYDAY ECONOMICS. *By Cornelius C. Janzen and Orlando W. Stephenson. Revised edition. New York: Silver, Burdett and Company*, 1934. *Pp.* 510. $1.68.

This secondary school textbook in practical economics was first published in 1931 and brought up to date in 1934 by adding a chapter on current federal activities. A middle of the road treatment that may be safely used in secondary teaching.

DAILY LESSON PLANS FOR TEACHING GREGG SHORTHAND BY THE SENTENCE METHOD. *By Meyer E. Zinman, Roslyn E. Strelsin and Elizabeth Friend Weitz. New York: Gregg Publishing Company*, 1934. *Pp.* 306. $1.20.

Here in book form are the lesson plans published serially in the *American Shorthand Teacher* from September, 1931, to May, 1932. The book contains detailed lesson plans, using the conventional method, with care to present new words in context. Many good teaching devices and suggestions are included.

ELEMENTARY SCHOOL ORGANIZATION AND ADMINISTRATION. *By Henry J. Otto. New York: D. Appleton-Century Company*, 1934. *Pp.* 652. $3.

This book is the first of the new Appleton-Century Series in Administration, edited by Fred C. Ayer and Fred Engelhardt. It is a well balanced and well written summation and interpretation of the development and current tendencies in elementary education. It offers the most complete coverage with respect to all functional activity phases. No contributions are made in the fields of philosophy and practice, but the book will prove valuable for compendium and review purposes. Principals will find it a most handy volume for reference work.

EUROPEAN POLICIES OF FINANCING PUBLIC EDUCATIONAL INSTITUTIONS. *I. France, Publications in Education:* 8: 1. *By Fletcher Harper Swift. Berkeley: University of California Press*, 1934. *Pp.* 180. $1.50.

Fletcher Harper Swift spent a year abroad studying extensively the methods of financing European systems of education. The results of his studies will be published in six numbers as Volume 8 in the education series of the University of California. The present publication, concerned with French education, is the first of the series. Some of the material in this volume is already familiar to readers of The NATION'S SCHOOLS through Doctor Swift's earlier articles. The series will be a distinct contribution to the literature of educational finance.

CONCLUSIONS AND RECOMMENDATIONS OF THE COMMISSION ON THE SOCIAL STUDIES. *New York: Charles Scribner's Sons*, 1934. *Pp.* xi, 168. $1.25.

Probably the most controversial publication of the year. The final report of the Commission of the Social Studies sponsored by the American Historical Association. Slaps the testing movement with more emotion than fact; sets forth good picture of teacher for the new era; more advanced in philosophic assumptions than suited conservative members, and omitted to publish minority objections.

THE SECOND YEARBOOK OF SCHOOL LAW. *Edited and published by M. M. Chambers, 321 Education Building, Columbus, Ohio. Pp.* 96. $1.

This is a pioneer's second venture into a much neglected field. There are thirteen chapters containing a summary of decisions of the higher courts in every state on matters pertaining to schools. A foreword by Dr. George F. Zook presents the summaries by thirteen specialists, including W. L. Coffey, M. R. Keyworth, Newton Edwards and Frederick Weltzin. This yearbook is a significant contribution that will prove invaluable to superintendents and attorneys for boards of education.

TAXES AND TAXATION. *By W. B. Storm and H. C. Storm. Bloomington, Ill.: McKnight and McKnight, Publishers. Pp.* 108. *Paper.* $0.40.

This pamphlet is offered as supplementary material in presenting a unit on taxation in courses in social studies and mathematics in junior or senior high schools.

BUILDING CHARACTER THROUGH DRAMATIZATION. *By Jessica Childs. Evanston, Ill.: Row, Peterson & Company*, 1934. *Pp.* 374.

Those who are responsible for auditorium activities and work in oral expression generally will find more of value in this book than will builders of a character education program. But 144 pages are given over to the treatment of the theme, in which a generous array of character outcomes is occasionally mentioned; the rest of the book is devoted to programs of all sorts worked out under the author's direction. Both parts, however, are rich in suggestions for making this kind of work really educative.

THE PRINCIPLES AND PRACTICES OF FINANCIAL ACCOUNTING FOR SCHOOLS. *By John Guy Fowlkes. Milwaukee: E. M. Hale and Company*, 1934. *Pp.* 238. $3.

A presentation of a system of accounting developed by the author in Wisconsin. Essentially a manual designed for use with a system of forms and blanks designed for personnel accounting, property accounting and financial accounting.

SELECTED REFERENCES IN EDUCATION, 1933. *Reprints from The School Review and The Elementary School Journal. Chicago: University of Chicago Press*, 1934. *Pp.* 190. $0.90.

Five hundred eighty-five selected and annotated references in the field of education are contained in this book, the first of a series. It fills the gap made by suspension of the Office of Education publication *Record of Current Educational Publications*. It is invaluable as a ready reference list for school and university libraries. The omission of an alphabetical list of authors and subjects is a disadvantage.